

Faculty members' achievement goals and subjective well-being

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Faculty Members' Achievement Goals and Subjective Well-being

Cumulative Dissertation

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Summary

Faculty members largely contribute to the functioning and development of higher education, science, and society. Given their fundamental role, there is a need to ensure that they are equipped with high levels of subjective well-being—not only as a means of promoting productivity and success, but also personal satisfaction, flourishing, and fulfillment. Despite this, studies clearly indicate that faculty members struggle with aspects of their subjective well-being and face numerous professional challenges linked to stress and burnout (see Kinman & Johnson, 2019). It is thereby crucial that research efforts focus on identifying relevant predictors and outcomes of faculty subjective well-being to enhance both individual and institutional health and vitality.

To this end, faculty members' individual motivations, particularly their achievement goals, have been found to play a central role in their work-related perceptions and experiences (Daumiller, Stupnisky, & Janke, 2020). Achievement goals are defined as cognitive representations of end states in achievement contexts that individuals strive to approach or avoid (Hulleman et al., 2010). These goals are posited to give rise to different thoughts, feelings, and behaviors, including patterns of self-evaluation and coping (Dweck & Leggett, 1988; Nicholls, 1984). Based on this, it can be expected that faculty members' achievement goals are closely linked with their subjective well-being, making this a promising research avenue for understanding how to better support them. However, this topic has received little empirical attention, leaving several central research questions unanswered: *How are faculty members' achievement goals associated with different facets of their subjective well-being? Are these associations robust across faculty members from different contexts? What is the temporal ordering of these constructs from a longitudinal perspective?* These questions form the primary focus of this dissertation and were investigated within three empirical studies.¹

In the first study (Study I), a focus was placed on examining the associations between faculty members' ($N = 439$) achievement goals and the emotional facets of their subjective well-being, namely their positive and negative discrete emotions. Multiple regression analyses revealed that mastery (learning) approach goals were positively associated with enjoyment and negatively associated with anger and boredom, while mastery (learning) avoidance goals were positively associated with anger. Performance (appearance) approach goals were positively associated with pride, whereas performance (appearance) avoidance goals were linked with anxiety and shame. Additionally, relational goals were positively

¹ This dissertation was conducted within the framework of a project funded by the German Research Foundation (Deutsche Forschungsgemeinschaft; DFG) titled "University Instructors' Goal Orientations, Professional Learning Behavior, and Teaching Quality: Determinants, Consequences, and Moderators" (Zielorientierungen von Dozierenden, berufliches Lernverhalten und Lehrqualität: Determinanten, Konsequenzen, Moderatoren; ZIDO) under Grant DR 454/8-1.

associated with shame and boredom, and work avoidance goals were negatively associated with enjoyment and positively associated with shame and boredom.

Building on these findings, the second study (Study II) investigated the associations between achievement goals and both emotional and cognitive facets of subjective well-being (positive and negative emotions, personal accomplishment, and life satisfaction) in a sample of 1,335 faculty members using structural equation modelling. The study also examined potential differences in associations based on the country (Germany, USA, India) and type of higher education institution (research-focused vs. teaching-focused) that faculty members worked in. The results indicated that mastery (task) approach goals were positively related to aspects of subjective well-being, while performance (appearance) approach, performance (appearance) avoidance, and work avoidance goals were negatively related. Mixed findings emerged for mastery avoidance and relational goals. These associations were not found to significantly differ across faculty from different countries or institution types.

The final study (Study III) assessed the temporal ordering of faculty members' ($N = 493$) achievement goals and multifaceted subjective well-being (positive and negative affect, job satisfaction, and life satisfaction), over the course of one semester (three months). Findings from latent change score modelling revealed that faculty members who had higher levels of subjective well-being at the semester start experienced subsequent increases in mastery approach and performance (appearance) approach goals, and decreases in performance (appearance) avoidance and work avoidance goals. Moreover, higher levels of mastery approach and performance approach goals at the semester start positively predicted respective increases in positive affect and job satisfaction.

The studies in this dissertation provide evidence of differential and theoretically relevant associations between faculty members' achievement goals and aspects of their subjective well-being, above and beyond personal and demographic factors. Consistent with prior research, positive associations were found between mastery approach goals and various aspects of subjective well-being. Conversely, clear negative associations were identified for performance (appearance) avoidance and work avoidance goals. Mixed patterns of results were observed for mastery avoidance goals and performance (appearance) approach goals. Relational goals generally had negative associations with aspects of faculty subjective well-being across the studies, and no statistically significant effects emerged for performance (normative) goals. Thus, certain goals appear to be more consistently linked with faculty members' subjective well-being than others. These associations did not significantly differ across countries and types of higher education institutions. Additionally, while achievement goals were found to predict changes in subjective well-being over time, more frequently, subjective well-being predicted changes in achievement goals, with some evidence of reciprocal effects.

Overall, this dissertation offers a theoretically and empirically substantiated overview of faculty members' achievement goals and subjective well-being. The results from the three studies can be used to inform faculty development research and practical initiatives in terms of the relevance of different achievement goals in relation to aspects of subjective well-being, as well as generalizability of these associations across different contexts and their temporal ordering over time.

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1. Introduction

Faculty members can be described as the cornerstone of higher education institutions. Their role is multifaceted, including teaching and advising, conducting and publishing research, securing funding, disseminating scientific knowledge, and providing service to departments, universities, and communities. Accordingly, the work carried out by faculty members has wide-reaching educational, scientific, and societal implications, making it essential that they are equipped with resources to thrive in this demanding role. From a psychological perspective, one such resource involves having high levels of subjective well-being, defined as “a person’s cognitive and affective evaluations of his or her life” (Diener et al., 2002, p. 63). Subjective well-being, often used interchangeably with the term “happiness”, comprises different facets, namely positive emotions, (infrequent) negative emotions, domain satisfaction, and life satisfaction. Subjective well-being is not only a fundamental indicator of positive psychological functioning, but is also associated with improved physical health, better relationships, increased sociability, and greater work enjoyment and productivity (Diener et al., 2017; Lyubomirsky et al., 2005; Moore et al., 2017; Tenney et al., 2016). Thus, faculty members with higher levels of subjective well-being are likely to be better positioned to conduct high-quality work and feel happier in the process.

Despite the clear benefits of subjective well-being, maintaining it can be challenging in the current academic environment. Over the past 20 years, the higher education sector has undergone significant changes, including massification, internationalization, and commercialization—often without corresponding increases in institutional and employee resources (see Mudrak et al., 2018; Sabagh et al., 2018). Although studies have found faculty members to report being satisfied with their jobs (see Catano et al., 2010; Kinman & Jones, 2008; Shin & Jung, 2014), the current working landscape is characterized by high teaching and research pressures, administrative burden, limited resources, financial insecurity, and poor leadership and management. These factors, among others, have been found to pose a threat to faculty subjective well-being on an international level (for findings in different countries, see Barkhuizen & Rothmann, 2008; Catano et al., 2010; Höhle & Teichler, 2013; Kinman & Jones, 2008; Kinman et al., 2006; Mudrak et al., 2018; Padilla & Thompson, 2016; Winefield et al., 2008). For instance, Lackritz (2004) found that around 20% of all faculty members at a US university reported high levels of burnout. In the UK, Fontinha et al. (2019) documented that faculty members experienced significantly poorer quality of working life when compared to non-academic staff. Torp et al. (2018) similarly discovered that faculty members in Norway faced significantly higher levels of workaholism and work-family conflict compared to non-academic staff. In Germany, where this dissertation is primarily based, faculty members have been classified as having “declining job satisfaction and high stress” (Shin & Jung, 2014, p. 616). Systematic reviews have further confirmed that faculty perceive

their roles as stressful and experience burnout at higher levels than the general working population (Guthrie et al., 2017; Watts & Robertson, 2011).

While these widespread pressures affect many faculty members, not all experience the same impact on their well-being. Researchers have invested considerable effort in examining work-related, institutional, and demographic factors to understand this variation. However, these factors alone do not fully account for the differences in how faculty experience their work, suggesting the importance of investigating internal, psychological factors, such as motivation. Individual motivations can shape how faculty members respond to professional challenges and engage with their work, and may therefore be critical in explaining variability in their subjective well-being (see Daumiller, Stupnisky, & Janke, 2020; Stupnisky et al., 2016).

Motivation is theorized to be “one of the most important building blocks of well-being” (Tamir & Diener, 2008, p. 416). Different theories have been used to explain the quantity and quality of faculty motivations, including self-efficacy beliefs (Hall et al., 2019), basic psychological needs (Crick et al., 2020; Larson et al., 2019; Meng, 2020), and, increasingly prominent in faculty development research, achievement goals (Daumiller et al., 2019). Research suggests that faculty members’ achievement goals are central motivational factors that hold important implications for their professional lives, including attitudes towards help-seeking, professional development experiences, and emotional aspects of their subjective well-being (e.g., Daumiller et al., 2019; Hein et al., 2019; Hein et al., 2021). Following an achievement goal approach, the different goals that faculty members strive for can be posited to be intertwined with their perceptions of and reactions to work experiences and stressors, including different cognitive, behavioural, and affective processes that are closely connected to subjective well-being (see Dweck & Leggett, 1988; Elliot & Harackiewicz, 1996; Kaplan & Maehr, 1999; Payne et al., 2007).

Despite the promise of using an achievement goal approach to understand faculty members’ subjective well-being, this line of research is still at an early stage of development and entails several knowledge gaps. While studies on school teachers and initial research on faculty offer insights into the links between achievement goals and subjective well-being, further research is needed for a clearer understanding. Existing studies often use less differentiated theoretical frameworks, indicating the need for more nuanced insights to explain mixed findings. Moreover, there is limited understanding of whether these associations differ across faculty members from various contexts, such as different countries or types of higher education institutions, complicating the generalization of findings. Finally, longitudinal studies are needed to explore the causal directions of these associations, which would support the development of practical initiatives aimed at supporting faculty.

The main objective of this dissertation was to contribute to closing these knowledge gaps by generating a deeper understanding of the associations between faculty members’

achievement goals and subjective well-being. To do so, three studies were conducted: Study I provided insights into the relations between faculty members' achievement goals and their discrete emotions. Study II examined faculty members' achievement goals with emotional and cognitive facets of their subjective well-being, as well as the generalizability of these associations across countries and institution types. Lastly, Study III examined the temporal ordering of faculty members' achievement goals and subjective well-being over the course of one semester. In all studies, the influence of relevant demographic and personal factors, such as gender, age, position type, and teaching experience, was controlled for.

This dissertation is organized into four sections. The first section reviews theoretical perspectives and empirical research on achievement goals and subjective well-being, as well as their interconnections. Next, the overarching research questions are summarized, followed by descriptions of the three empirical studies conducted. The final section provides a general discussion of the findings, their contributions to the field, and implications for future research and practice.

2. Theoretical Background

2.1. Subjective Well-being

The concept of subjective well-being can be situated within the broader research area of positive psychology. According to Seligman and Csikszentmihalyi (2000), positive psychology is concerned with “well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present)” (p. 5). This branch of research stems from the recognition that psychology had disproportionately focused on psychopathology and supporting individuals in distress, rather than on understanding what makes people flourish and feel happy and well (Seligman, 2002). Thus, from a positive psychology perspective, studies on well-being help contribute to a more balanced understanding of the human experience.

Subjective well-being can be understood and measured in different ways, depending on the theoretical perspective being taken. Most research has stemmed from two distinct, yet related perspectives rooted in ancient Greek philosophy: eudaimonism and hedonism (see Kahneman et al., 1999; Waterman 1993). While the eudaimonic perspective is concerned with defining happiness in terms of self-actualization and personal growth, the hedonistic perspective suggests that pleasure, comfort, and enjoyment constitute the essence of well-being (see Ryan & Deci, 2001). Both perspectives are crucial for human functioning. However, as the present dissertation is framed within the context of understanding motivational factors that may enable faculty members to feel more positive and satisfied, a focus is placed on the hedonistic perspective.

To this end, the most prominent view of subjective well-being among hedonic researchers stems from Diener (1984, 2000). According to Diener (2009), subjective well-being research rests on three primary assumptions. First, subjective well-being is inherently subjective, as it is based on the unique interpretations and experiences of the individual. Next, subjective well-being is more than the absence of ill-being and also emphasizes positive measures. This stands in line with the aims of positive psychology in that a focus is placed not only on how to repair ill-functioning, but also on how to promote well-being and answer the question of what makes people happy (Seligman & Csikszentmihalyi, 2000). Lastly, subjective well-being incorporates a global assessment of all aspects of an individual’s life as a whole.

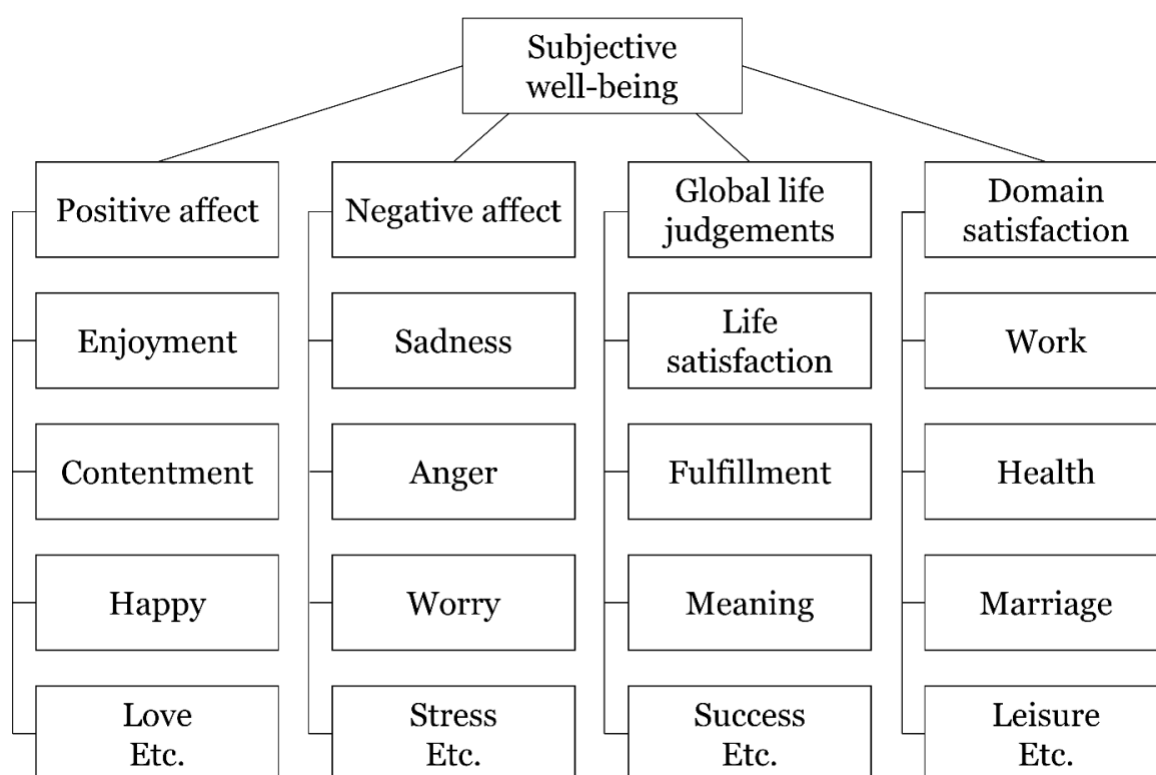
Consistent with these assumptions, Diener et al. (2009) proposed subjective well-being to be multifaceted, entailing both affective and cognitive components. These components can be arranged hierarchically and have different levels of specificity, as displayed in Figure 1. The affective components emphasize positive and negative affect, meaning the ongoing positive and negative emotions and moods that arise in response to different events in a person’s life. The cognitive components rather focus on a person’s judgements about how satisfied they are with their life as a whole and with specific domains

of their life, such as work, school, or personal relationships. These facets are conceptually and statistically related to one another yet are also distinct—each contributing unique and important information about how an individual is functioning (Diener et al., 2009).

Moreover, within each of these components, there are further distinctions that can be made depending on the specific research question being asked. For example, researchers may examine discrete emotions as opposed to more general positive and negative affect; or explore satisfaction within a domain relevant for their population of interest.

Figure 1

Hierarchical Model of Subjective Well-being



Note. Model and visualization developed by Diener et al. (2009, p. 71).

Diener's multifaceted conceptualization of subjective well-being has been widely accepted within the field of psychology and the social sciences. According to the Web of Science database, Diener's seminal article on subjective well-being published in 1984 in *Psychological Bulletin* has been cited over 5,000 times and has guided a significant amount of research, asserting its theoretical and empirical integrity. Adding to this, as well-being literature entails a multiplicity of approaches and measures, this framework can help to promote consistency and comparability across studies, especially given its widespread use. Overall, this conceptualization of subjective well-being can be considered an optimal framework for providing systematic and comprehensive insights into how faculty members are feeling. In the next section, each facet of subjective well-being is described, along with relevant findings regarding faculty members.

2.1.1. Positive and Negative Affect Facets

Positive and negative affective states (i.e., feeling good or bad) stem from discrete emotions and moods that mirror peoples' experiences of events that occur in their daily lives (Diener et al., 2009). While discrete emotions can be defined as short-term reactions to events or external stimuli, moods rather represent prolonged, low-intensity physiological states (Russell, 2003). Thus, depending on the research question at hand, different levels of specificity (e.g., discrete emotions vs. general affect) can be measured according to the desired level of detail (Diener et al., 2003). Overall, these affective experiences provide important insights into how people appraise the conditions and events taking place in their lives, and thereby form important components of their subjective well-being.

Regarding faculty members' affective experiences, studies have shown that emotions are ubiquitous in teaching and research. In an experience sampling study, Thies and Kordts-Freudinger (2019b) identified that enjoyment, contentment, and hope were the most frequently experienced positive emotions throughout faculty members' daily work, while frustration, anger, and anxiety were frequently experienced negative emotions. Stupnisky et al. (2016) examined differences in faculty emotions related to teaching and research activities, finding that faculty experienced significantly more joy, pride, and boredom during teaching than research. In addition to faculty members' discrete emotions (see Hagenauer & Volet, 2014; Kordts-Freudinger, 2017; Postareff & Lindblom-Ylänne, 2011; Stupnisky et al., 2019a; Stupnisky et al., 2019b; Thies & Kordts-Freudinger, 2019a) studies have also examined related constructs that contain emotional elements, such as burnout (Lackritz, 2014; Sabagh et al., 2018; Watts & Robertson, 2011), stress (Bowen et al., 2016; Kinman & Wray, 2013; Urbina-Garcia, 2020), and mental health (Guthrie et al., 2017). These findings suggest that faculty members experience a range of positive and negative affective experiences, which vary across individuals and have significant implications for factors such as perceived success and overall health (Barkhuizen et al., 2014; Stupnisky et al., 2016; Stupnisky et al., 2019a; Stupnisky et al., 2019b; Zhong et al., 2009).

2.1.2. Domain Satisfaction Facet

Domain satisfaction refers to an individual's evaluation of their satisfaction with specific domains in their life, such as work, school, relationships, or health. The domains that a person values the most are posited to hold the greatest weight and are particularly important for their subjective well-being (Diener et al., 2002; Diener et al., 2009). For instance, students may be especially concerned with their school experiences, while adults may place greater emphasis on their work life. Domain satisfaction scores provide insights into the ways in which people conduct assessments of their overall life satisfaction, as well as areas of their life that are going well or poorly.

Given this background, job satisfaction can be considered a highly relevant domain for understanding faculty members' subjective well-being. Job satisfaction refers to feelings of fulfilment or enjoyment derived from one's work, which are thought to be linked to productivity and engagement and to "spill over" into overall life satisfaction (see Bowling et al., 2010). Although faculty members often face stress, strain, and mental health challenges, studies have also found them to report moderate levels of job satisfaction (e.g., Bentley et al., 2013; Höhle & Teichler, 2013; Shin & Jung, 2014). For example, Shin and Jung (2014) found that faculty members from Japan, Canada, the Netherlands, Finland, and Korea simultaneously experienced high job stress as well as high job satisfaction. Bentley et al. (2013) also documented that faculty members from Japan felt both stressed and satisfied with their job. The fact that faculty members can simultaneously experience high stress and high satisfaction speaks to the importance of taking a multifaceted perspective when examining their subjective well-being. Focusing on just one factor could lead to different conclusions. Moreover, previous studies have shown differences in job satisfaction among faculty based on demographic factors and position type, with the extent of these differences partly depending on the country being studied (e.g., Bozeman & Gaughan, 2011; Kwiek & Antonowicz, 2013; Webber, 2018).

2.1.3. Global Life Judgement Facet

While the affective components of subjective well-being capture ongoing emotional reactions to life events, and domain satisfaction focuses on assessments of specific areas of life, global life judgements refer to how satisfied individuals feel with their life as a whole. People are expected to vary in how they arrive at ratings of overall life satisfaction based on unique criteria and the factors they perceive as meaningful or relevant at the time of evaluation (Diener et al., 2009).

Research has generally found life satisfaction to be positively linked with factors such as physical health and longevity (Diener & Chan, 2011), self-esteem (Diener & Diener, 1995), job satisfaction (Rice et al., 1980), mental health (Fergusson et al., 2015), and decreased risk of mortality (Hülür et al., 2017). Literature examining life satisfaction in faculty members is sparse but has documented moderate to high mean-levels of satisfaction (Brown & Duan, 2007; Cerci & Dumludag, 2019; Linn et al., 1985; Meng, 2020; Toker, 2012) with variation between individuals.

2.1.4. Stability and Change in Subjective Well-being

Research indicates that subjective well-being exhibits both stability and change over time (Sheldon & Lucas, 2014). Although subjective well-being reflects a person's current life circumstances and may fluctuate accordingly, it also demonstrates a degree of stability, potentially influenced by factors such as personality traits or habitual coping strategies.

For example, meta-analytic evidence of one-year test-retest correlations for life satisfaction were around .50 (Schimmack et al., 2004). Paralleling this, meta-analytic evidence has documented test-retest correlations of .42 (Dormann & Zapf, 2001) for job satisfaction. Regarding positive and negative affect, studies have found stability coefficients ranging from .36–.50 (see Costa & McCrae, 1988; Watson & Walker, 1996). Research examining discrete emotions in educational contexts has also documented roughly half stable and half variable fractions (e.g., Nett et al., 2017; Respondek et al., 2019).

Thus, while all components of subjective well-being exhibit both stable and variable elements, certain aspects, such as life satisfaction, may be more stable, whereas emotional experiences can be expected to fluctuate more readily in response to situational changes. Despite these patterns of stability, there is considerable potential for subjective well-being to change over time. As Diener et al. (2016) emphasized, “it has become abundantly clear that circumstances and the choices people make in life can, and do, influence their long-term subjective well-being. We are no longer stuck with the fatalistic idea that nothing can be done to improve human subjective well-being” (p. 89).

2.1.5. Summary

In summary, each facet of Diener’s conceptualization of subjective well-being—positive and negative affect, domain satisfaction, and life satisfaction—holds significant relevance for faculty members’ personal and professional lives and warrants further research. The variation in each facet underscores the need to explore the reasons behind these differences and to provide support for faculty members who are struggling. Additionally, aspects of subjective well-being, particularly affective components, can fluctuate based on current life circumstances, suggesting potential for interventions aimed at enhancing happiness. Notably, there is a lack of studies that have examined all facets of subjective well-being simultaneously in faculty members, with most having focused on negative indicators, offering an incomplete picture of faculty members’ overall well-being.

2.2. Achievement Goals

In the 1990s and 2000s, achievement goal theory emerged as a leading approach to understanding and examining motivation in achievement contexts (Ames, 1992; Dweck & Leggett, 1988; Elliot & Church, 1997; Maehr, 1989; Nicholls, 1989; Pintrich, 2000). This theory aims to understand differences in the quality or types of motivation individuals pursue. Achievement goals are defined as “the purpose for engaging in competence-relevant behavior” (Elliot & Hulleman, 2017, p. 44). These goals serve as lenses through which individuals interpret, experience, and act in achievement situations. As a result, different achievement goals can lead to distinct patterns in thoughts, feelings, and behaviors.

Initially, achievement goal theory was primarily used to explore students’ motivations for engaging in achievement-related activities and their links to factors like academic success

and achievement emotions (e.g., Daniels et al., 2008; Daniels et al., 2014; Huang, 2011; Huang, 2012; Lüftenegger et al., 2016; Pekrun et al., 2006, 2009; Wirthwein et al., 2013). Over time, the theory has evolved to include further distinctions in achievement goals and has been applied to various groups, such as athletes (Daumiller, Rinas, & Breithecker, 2021; Daumiller, Rinas, & Jaitner, 2021; Newton & Duda, 1993; Stoeber et al., 2008), school teachers (Butler, 2007; Butler & Shibaz, 2008; Wang et al., 2017), and notably for this dissertation, higher education faculty (Daumiller et al., 2019; Daumiller, Stupnisky, & Janke, 2020). The following sections outline the developments in achievement goal theory that led to the creation of the hexagon model used in the present dissertation, which is specifically tailored to university faculty (Daumiller et al., 2019; see section 2.2.5).

2.2.1. Dichotomous Model

Early research on achievement goals utilized a dichotomous model that includes mastery and performance goals (Dweck, 1986; Maehr & Nicholls, 1980; Nicholls, 1984).² Mastery goals focus on developing competence and mastering tasks through personal standards, while performance goals center on proving or demonstrating competence through normative standards. These goals are thought to involve distinct processes. Mastery goals are associated with a drive to learn, improve past performance, and master skills required for successful task completion (Kaplan et al., 2002). In contrast, performance goals emphasize normative comparison, competition, and the desire to appear competent (Dweck, 1986; Nicholls, 1984).

The dichotomous model of achievement goals laid the foundation for an important discussion among researchers regarding the roles of standpoints and standards of competence in defining achievement goals (see Korn & Elliot, 2016; Korn et al., 2019). Standpoints describe why a person pursues a goal (developing vs. demonstrating competence), while standards describe how they evaluate success (against themselves or others). More specifically, while standpoints on competence refer to whether a person seeks to develop competence (mastery goal), or demonstrate competence (performance goal), standards of competence refer to whether one defines competence in terms of a task/self-based standard (mastery goal), or an other-based standard (performance goal; see Elliot & Hulleman, 2017). In the dichotomous model, both standpoints and standards are considered important, with mastery and performance goals each reflecting a combination of these two aspects.

² Different terms have been used throughout the literature to label mastery goals (e.g., learning goals, task goals) and performance goals (e.g., ego goals, ability goals).

2.2.2. Trichotomous Model

Building on the dichotomous achievement goal model, the main contribution of the trichotomous model was the integration of a distinction between approach and avoidance motivation (Elliot & Harackiewicz, 1996). Specifically, the trichotomous model includes three types of goals: mastery, performance approach, and performance avoidance goals. While mastery (approach) goals remain the same as described in the dichotomous model, performance goals are differentiated into performance approach and performance avoidance goals.

Performance approach goals are conceptualized as strivings to demonstrate competence relative to others and are thought to have conflicting motivational forces. On one hand, they represent a positive outcome focus that can be expected to propel positive processes and outcomes. On the other hand, they also entail a normative focus that may be detrimental through self-preservation tendencies (see Elliot & Church, 1997). Thus, depending on the variable in question, positive, negative, or no statistically significant associations may emerge with this goal type.

In contrast, performance avoidance goals are centered around strivings to avoid demonstrating incompetence to others and have been marked as a harmful form of regulation throughout the literature. This goal type is linked to fear of failure, self-protection concerns, and avoidance tendencies (see Elliot & Church, 1997), and thus, also to negative processes and outcomes.

2.2.3. 2 x 2 Model

In the 2 x 2 achievement goal model (Elliot, 1999; Elliot & McGregor, 2001; Pintrich, 2000), the approach–avoidance distinction applied to performance goals in the trichotomous model is also extended to mastery goals. Thus, this model distinguishes between four types of achievement goals: mastery approach, mastery avoidance, performance approach, and performance avoidance goals.

A further development of the 2 x 2 framework includes a shift to defining competence solely regarding standards. Mastery avoidance goals, therefore, involve strivings to avoid task-based or intrapersonal incompetence, such as avoiding performing poorly on a task or worse than one's previous performance. This goal type also entails competing motivational forces. Mastery avoidance goals share a positive task/self-based standard with mastery approach goals, which is linked to adaptive processes and outcomes. However, the avoidance orientation introduces a contrasting motivational force, potentially leading to aversive and self-protective processes.

Elliot and Hulleman (2017) noted that depending on the situation, either the mastery component or the avoidance component may become more salient, leading to positive or negative outcomes, respectively. Overall, mastery avoidance goals have been hypothesized to

be more positive than performance avoidance goals, yet less positive than mastery approach goals (Elliot & McGregor, 2001).

2.2.4. 3 x 2 Model

The 3 x 2 achievement goal model (Elliot et al., 2011) follows the 2 x 2 model in that competence is explicitly defined in terms of standards. However, it advances this by further distinguishing these standards into two separate goal types: task and self goals. Pairing this with the approach–avoidance distinction, this model comprises six different goal types: task approach goals, focused on doing well relative to the task at hand; task avoidance goals, focused on not doing poorly on the task at hand; self approach goals, focused on doing well with reference to how one has previously done; self avoidance goals, focused on not doing worse than one has previously done; other approach goals, focused on outperforming others; and lastly, other avoidance goals, focused on not failing to outperform others.

Regarding expectations of how these goals may be linked with different outcomes, task and self approach goals are thought to entail positive processes such as being absorbed in a task or optimally challenged, respectively, leading to positive outcomes. For task and self avoidance goals, like with mastery avoidance goals described in the 2 x 2 model, competing motivational forces make it difficult to form clear expectations. Other approach and avoidance goals are defined in the 3 x 2 model in the same way as performance approach and avoidance goals are defined in the 2 x 2 model, thus, similar patterns regarding processes and outcomes can be expected.

2.2.5. Achievement Goals in Teaching Populations

Achievement Goals in School Teachers

Historically, achievement goal research primarily focused on student motivation. More recently, however, studies have begun to investigate teacher motivation, recognizing that schools serve as achievement arenas for both students and teachers (Butler, 2007). Much of the research in this field has stemmed from the work of Butler (2007, 2012), who was the first to examine the nature and structure of teachers' achievement goals. Building on established achievement goal models and additional theorizing relevant to teachers, Butler (2007) tested a model featuring four types of goals: mastery approach (strivings to learn and develop professional competence), performance approach (strivings to prove superior teaching ability), performance avoidance (strivings to avoid the demonstration of inferior teaching ability), and work avoidance goals (strivings to get through the day with little effort).

While the first three goals align with the trichotomous achievement goal model, work avoidance goals are defined as efforts to manage performance situations with as little work as possible and to minimize challenges (Archer, 1994; Nicholls, 1989; Nicholls et al., 1985). According to Elliot (1999), work avoidance goals represent the absence of an achievement goal. In the teaching context, work avoidance goals might include activities such as canceling

lessons or avoiding lesson preparation. Butler later expanded this model to include relational goals, addressing the interpersonal aspects of teachers' work (Butler, 2012). Relational goals are generally defined as the desire for interpersonal contact (Kaplan & Maehr, 2007). In the teaching context, they reflect strivings to attain caring personal relationships with students.

Considerable evidence has been collected to suggest that teachers' achievement goals, particularly those mentioned above, are important explanatory factors regarding their perceptions of their work environment, teaching behaviors, and although less researched, also aspects of their subjective well-being (e.g., Butler, 2007; Butler & Shibaz, 2014; Dickhäuser et al., 2007; Nitsche et al., 2011; Retelsdorf et al., 2010).

Achievement Goals in University Faculty

Building on previous achievement goal models and research on school teachers, recent studies have also aimed to understand the impact of achievement goals pursued by faculty members in higher education institutions (see Daumiller et al., 2019; Daumiller, Stupnisky, & Janke, 2020). While there are similarities between the roles of school teachers and university faculty, there are also significant differences. As Butler (2012) pointed out: "extrapolating [...] from theory and research on students' achievement goals can be faulted for failing to consider how goals for teaching are not only similar to but also might differ from goals for learning" (p. 727). This same concern arises when attempting to generalize findings from school teachers to faculty members.

While both groups contribute to teaching, guiding, and supervising students, faculty often have a higher degree of autonomy in designing and scheduling their courses, as well as larger class sizes. Alongside teaching, faculty members typically have administrative, research, and service tasks, among other responsibilities. Thus, while it can be assumed that findings on school teachers may in part be transferrable to university faculty, research findings on school teachers must be "verified and differentiated for the university context" (Daumiller et al., 2016, p. 2).

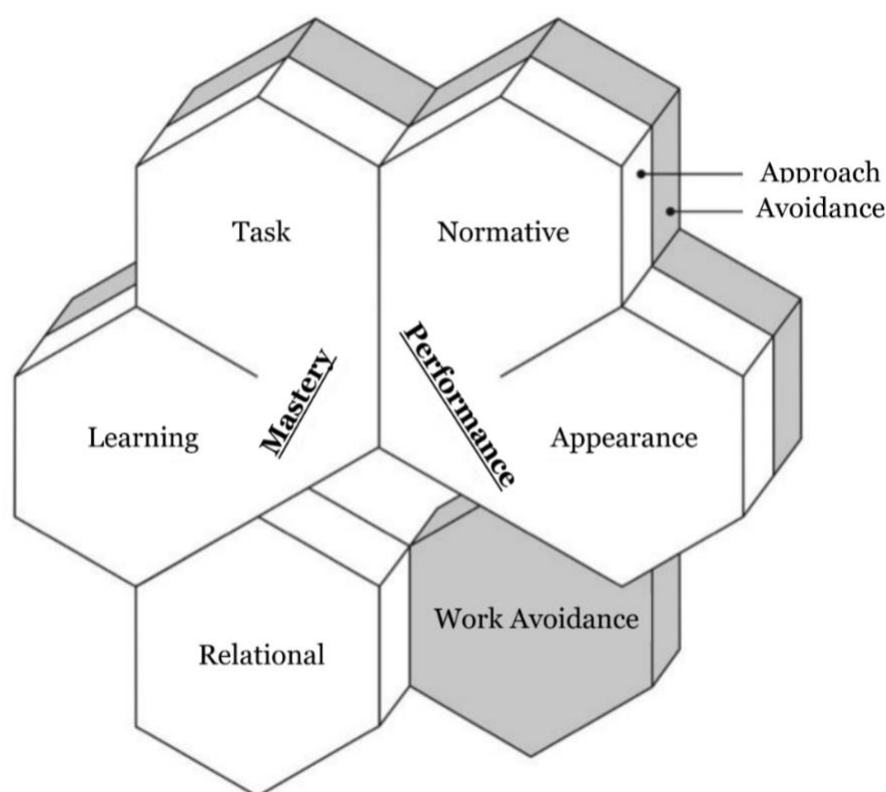
Daumiller et al. (2015) pursued this research endeavor by conducting a qualitative interview study to assess the achievement goals that faculty members pursue and their prominence. They found that faculty members reported mastery, performance approach, performance avoidance, work avoidance, and relational goals. Notably, appearance and normative components of performance goals, as well as early indications of mastery avoidance goals were also identified within the interviews. Following this, Daumiller et al. (2016) conducted a quantitative study on the structure of faculty members' achievement goals (mastery, performance approach, performance avoidance, work avoidance, and relational goals), and their relationships with various personal and professional factors. Confirmatory factor analyses confirmed the structure of the five achievement goals in faculty, and subsequent analyses revealed unique relationships with self-efficacy and enthusiasm, as well as students' perceptions of teaching quality. Performance approach and avoidance goals

were highly correlated, suggesting the potential need to further differentiate these goals into appearance and normative components.

Extending this research, Daumiller et al. (2019) proposed a model of faculty achievement goals that incorporated further goal distinctions (based on findings from Daumiller et al., 2015; Daumiller et al., 2016), which was termed the hexagon model. This model differentiates between six types of goals: learning, task, normative, appearance, relational, and work avoidance goals (see Figure 2), all of which were considered relevant for university faculty. In this model, learning and task goals are conceptualized as mastery-based goals, while appearance and normative goals are conceptualized as performance-based goals. Each of these goals is further divided into approach and avoidance components, resulting in 10 distinguishable goals. An overview of the definitions of each goal can be found in Table 1. Overall, analyses confirmed the structure of the proposed model, as well as its invariance across faculty members with different academic positions. Additionally, distinct relationships were identified between individual achievement goals and positive affect, attitudes toward help-seeking, and self-reported teaching quality.

Figure 2

The Hexagon Model of Achievement Goals



Note. Model and visualization developed by Daumiller et al. (2019).

Table 1*Overview of Achievement Goals for University Faculty by Daumiller et al. (2019)*

Goal class	Achievement goal	Definition as striving to ...
Mastery approach	Task approach	... do well on a task, based on its own standard.
	Learning approach	... develop and grow own competencies.
Mastery avoidance	Task avoidance	... avoid doing poor on a task, based on its own standard.
	Learning avoidance	... avoid losing own competencies or not developing them.
Performance approach	Appearance approach	... appear competent to others.
	Normative approach	... be more competent than others.
Performance avoidance	Appearance avoidance	... avoid appearing incompetent to others.
	Normative avoidance	... avoid being less competent than others.
Additional goals	Work avoidance	... get through the day with little effort.
	Relational	... create close and caring relationships with students.

Since its conception, a surge of research has used the hexagon model to explore how achievement goals matter for faculty, both in teaching and research domains. In their special issue on faculty motivation, Daumiller, Stupnisky, and Janke (2020) recognize achievement goals as key factors representing faculty members' motivations in achievement situations. As with students and school teachers, these goals are posited to have significant implications for faculty members' thoughts, behaviors, and emotions (see overview model in Figure 3).

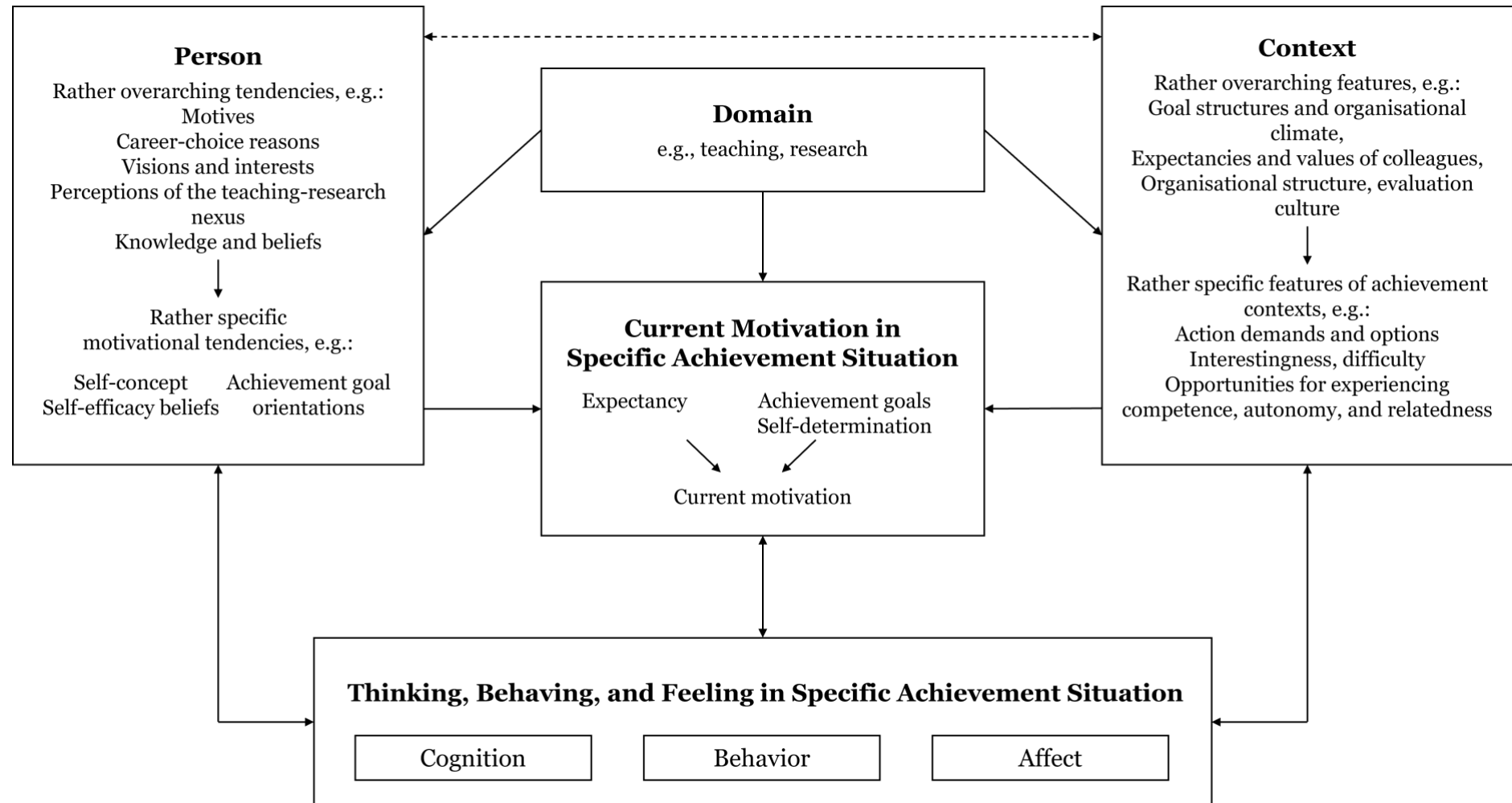
Empirical studies have demonstrated the potential of the hexagon model for examining the associations between faculty achievement goals and various factors, such as attitudes towards teaching during the COVID-19 pandemic (Daumiller, Rinas, Hein, et al., 2021), professional development experiences (Daumiller, Rinas, Olden, & Dresel, 2021; Hein et al., 2019; Hein et al., 2020; Hein et al., 2021; Kücherer et al., 2021), humor in teaching (Daumiller, Bieg et al., 2020), and the use of questionable research practices (Janke, Daumiller, & Rudert, 2019). Research has also shown that faculty achievement goals influence their teaching quality (Daumiller et al., 2022) and their students' learning experiences (Daumiller, Janke, Hein, et al., 2021).

Aside from this, initial studies have examined associations between these goals and emotional aspects of subjective well-being—both in teaching (Daumiller et al., 2019; Daumiller & Dresel, 2021) and research (Daumiller & Dresel, 2020a, 2021)—though this area remains under researched. Overall, findings suggest that some achievement goals are beneficial (i.e., task and learning approach goals), others maladaptive (i.e., appearance avoidance, normative avoidance, and work avoidance goals), while others show more ambiguous effects (i.e., appearance approach, normative approach, task avoidance, learning avoidance, relational goals).

Although faculty members' achievement goals are clearly relevant, further research is needed to identify more consistent patterns across diverse samples, particularly outside of the German higher education context, where most of the existing research has been conducted. This is especially true regarding links with aspects of faculty members' subjective well-being, an area that has received only limited attention, as discussed in section 2.3.

Figure 3

Conceptual Overview Model of Faculty Motivation developed by Daumiller, Stupnisky, and Janke (2020)



2.2.6. Stability and Change in Achievement Goals

When considering stability and change of achievement goals, it is often assumed that these goals are relatively stable over time, with limited influence from situational factors, as suggested by the term “goal orientations”. However, recent evidence indicates that achievement goals can vary over time and shift depending on the situation or domain. In accordance with both perspectives, research has found achievement goals to contain both stable and variable components (e.g., Daumiller, Janke, Rinas, et al., 2021; Praetorius et al., 2014).

Praetorius et al. (2014) proposed a conceptual framework to elaborate on the stable and variable components of achievement goals and what they entail. They suggested that the stable component may be influenced by individual characteristics and stable contextual factors, while the variable component may be shaped by changing individual characteristics, self-regulation activities, and shifting contextual features. Indeed, studies have found test-retest coefficients for achievement goals to range between .40 and .70 (Senko et al., 2011), with approximately half of the variance attributed to stable and half to variable components over time (Praetorius et al., 2014; Daumiller & Dresel, 2021; Daumiller, Janke, Rinas, et al., 2021).

Notably, several studies have demonstrated that achievement goals are malleable and can be experimentally manipulated (e.g., Daumiller & Janke, 2020; Dickhäuser et al., 2011). As summarized by Kaplan et al. (2002), “achievement goals are more than simply a situation-specific cognitive state [...] they are somewhat stable, and can influence, and be influenced by contextual, cognitive, and affective variables over time” (p. 38).

2.2.7. Summary

In summary, achievement goal theory offers a theoretically sound and promising framework for investigating faculty members’ individual motivations and how they matter for work-related cognitions, emotions, and behaviors. Similar to research on students and school teachers, studies have clearly demonstrated the relevance of faculty achievement goals, showing that different achievement goals are associated with distinct outcomes. Additionally, there is evidence suggesting that achievement goals are malleable, indicating that interventions aimed at helping faculty members adopt more adaptive goals are feasible. However, as this area of research is still in its early stages, a clearer understanding is needed of how faculty achievement goals are linked with important yet underexplored constructs, such as their subjective well-being, as discussed in section 2.3.

2.3. Achievement Goals and Subjective Well-being

As motivation is linked to pleasure, pain, and meaning in life, it is considered to be closely connected to subjective well-being. According to Tamir and Diener (2008), both the

pursuit and the fulfillment of motivational pursuits are important for well-being. In line with this, the goals that individuals strive for give life meaning, structure, direction, and are tied to how they evaluate and feel about their lives (see Kaftan & Freund, 2018; Tamir & Diener, 2008). Within general goal literature, approach goals are focused on moving towards positive states and are expected to be associated with flourishing and higher subjective well-being, while avoidance goals are focused on avoiding aversive states and are thought to be associated with protective behaviours and lower subjective well-being (Elliot, 1997; Tamir & Diener, 2008). Further, it has been suggested that approach goals may be easier to assess in terms of progress given their rather clearly formulated end states, thereby having more positive associations with subjective well-being, while for avoidance goals, it is difficult to measure progress and attainment, potentially leading to negative associations with subjective well-being (Tamir & Diener, 2008).

The notion that different types of goals (e.g., approach vs. avoidance goals) can have varying effects on subjective well-being aligns with the conceptualization of achievement goals in this dissertation. Specifically, since achievement goals are thought to act as lenses for how individuals evaluate current and future achievement situations, it follows that the type of goal being pursued can lead to differences in cognitions, emotions, and behaviours, including self-evaluations and patterns of coping, as well as subjective well-being (see Kaplan & Maehr, 1999; Tuominen-Soini et al., 2008; Tuominen-Soini et al., 2012). However, it is important to acknowledge there are also theoretically convincing indications that differences in subjective well-being can foster different achievement goal strivings (see section 2.3.3.).

Despite clear theoretical connections between achievement goals and subjective well-being, this topic has received little research attention. This is particularly the case regarding research on teaching populations. Teaching, a core responsibility for many faculty members, is characterized by high standards, continuous learning and improvement, and is both time-intensive and highly interpersonal. As such, this context represents an achievement arena where achievement goals are likely to have significant connections with subjective well-being. However, only a handful of primarily cross-sectional studies have explored this topic in school teachers, and even fewer have examined faculty members. The studies that do exist have often employed less differentiated models of achievement goals compared to the hexagon model discussed in this dissertation, and have typically assessed only single facets of subjective well-being, rather than treating it as a multifaceted construct. Nevertheless, these studies provide important insights into how different achievement goals can be hypothesized to be associated with aspects of subjective well-being in faculty, and thereby guide the research aims proposed within this dissertation. A detailed overview of research connecting achievement goals and subjective well-being in teaching contexts is provided in the following sections.

2.3.1. Theoretical and Empirical Relations in Teaching Populations

Mastery Approach Goals

Mastery approach goals, which can be differentiated into learning approach and task approach goals, involve strivings to develop knowledge and competencies and to perform professional tasks well, respectively. The endorsement of mastery approach goals is generally thought to promote interest in and perceived value of tasks, positive emotional experiences, and the perception of setbacks and failures as opportunities to learn and grow (see Elliot & Harackiewicz, 1996). In the teaching profession, these processes are likely to correspond with healthier appraisals of work-related stressors and more adaptive coping strategies, and in turn, positive associations with subjective well-being.

Corroborating this, studies have found mastery approach goals to be positively associated with joy and satisfaction in school teaching roles (Janke, Bardach et al., 2019; Papaioannou & Christodoulidis, 2007; Wang et al., 2017) and negatively associated with job stress, burnout, and emotional exhaustion (Nitsche et al., 2013; Retelsdorf et al., 2010; Tönjes & Dickhäuser, 2009). Similar findings have also been observed in studies on university faculty, where task approach goals have been linked to positive affect in teaching (Daumiller et al., 2019) and reduced burnout in research (Daumiller & Dresel, 2020a). Beyond this, little is known about how faculty members' mastery approach goals relate to other aspects of their subjective well-being, also regarding the further differentiated task approach and learning approach goals. While both (task and learning) goals can be expected to have positive links with subjective well-being given their adaptive nature, further research is needed to disentangle their potentially unique effects.

Mastery Avoidance Goals

Mastery avoidance goals can be differentiated into learning avoidance and task avoidance goals, which focus on avoiding the loss or lack of development of knowledge and competencies, as well as avoiding poor performance in professional tasks, respectively. As discussed in section 2.2.3, this goal type is driven by conflicting motivational forces. Mastery avoidance goals can, on the one hand, be viewed as beneficial given their positive focus on learning and task mastery. On the other hand, their unfavorable avoidance focus can be harmful. Specifically, as a negative (avoidance) outcome is being used as the hub of regulation, this may be linked to fears of regressing, reminders of potential failure, and perfectionist thoughts and behaviors (see Elliot & McGregor, 2001; Van Yperen et al., 2009). Individuals who are older or newly hired may be particularly prone to adopting mastery avoidance goals as a strategy to “get by” (Baranik et al., 2010).

In teaching populations, however, there is little research on the relationship between mastery avoidance goals and subjective well-being. The available evidence on faculty has found non statistically significant associations between both task and learning avoidance

goals with positive affect (Daumiller et al., 2019), as well as with burnout in the research context (Daumiller & Dresel, 2020a). Outside of teaching populations, a meta-analysis conducted by Baranik et al. (2010) found moderate associations between mastery avoidance goals with negative affect. Overall, while further research is needed on this goal type—including the distinctions between task and learning avoidance components—it can be theoretically expected that mastery avoidance goals are negatively linked to subjective well-being.

Performance Approach Goals

Performance approach goals, which include appearance approach and normative approach goals, are focused on appearing competent to others or outperforming others, respectively. Like mastery avoidance goals, performance approach goals entail competing motivational forces (see section 2.2.3). They may be considered beneficial because they emphasize the pursuit of competence-related information, which is important for optimal functioning and well-being (Elliot & Moller, 2003). However, they can involve concerns related to self-presentation, self-validation, and self-protection, as individuals strive to appear competent or superior to others, which may have maladaptive effects on subjective well-being.

Research on school teachers has found performance approach goals to be positively associated with personal accomplishment (Tönjes & Dickhäuser, 2009; Tönjes et al., 2008) and job satisfaction (Wang et al., 2018), while being negatively associated with anxiety (Janke, Bardach et al., 2019). However, other studies have reported a lack of significant effects, for instance, regarding occupational strain, burnout, or emotions (Nitsche et al., 2013; Retelsdorf et al., 2010; Wang et al., 2017). Regarding the differentiation between appearance and normative components of performance approach goals, Daumiller et al. (2019) found positive associations between normative approach goals and positive affect in university faculty, while Daumiller and Dresel (2021) observed no significant associations regarding appearance and normative approach goals for burnout. While more is needed to clarify the role of performance goals for subjective well-being, current evidence from teaching populations suggests primarily adaptive associations.

Performance Avoidance Goals

Performance avoidance goals, which include appearance and normative avoidance goals, focus on avoiding appearing incompetent in front of others and avoiding performing worse than others, respectively. Research suggests that performance avoidance goals represent a harmful form of regulation, driven by worries about potential failure, self-protection, and avoidance tendencies (see Elliot & Church, 1997). As a result, negative associations with subjective well-being are expected.

Consistent with this, performance avoidance goals in school teachers have been linked with increased anxiety, occupational strain, burnout, and emotional exhaustion (see Janke, Bardach et al., 2019; Nitsche et al., 2013; Retelsdorf et al., 2010; Tönjes & Dickhäuser, 2010), as well as decreased enjoyment, perceived accomplishment, and job satisfaction (Janke, Bardach et al., 2019; Papaioannou & Christodoulidis, 2007; Tönjes & Dickhäuser, 2010). These maladaptive patterns have also been found to persist in university faculty, where normative avoidance goals for teaching have been negatively linked with positive affect (Daumiller et al., 2019), while normative avoidance goals for research have been positively linked with burnout (Daumiller & Dresel, 2020a). Given these findings, performance avoidance goals can be expected to have clear negative links with subjective well-being in teaching populations.

Relational Goals

Relational goals focus on fostering meaningful and close-knit relationships with students (Butler, 2012). Teachers with this goal type can theoretically be expected to experience positive associations with subjective well-being, as creating and maintaining such relationships with students is likely conducive to positive thoughts and emotions within teaching. For example, in a study conducted by Hagenauer et al. (2015), it was found that teachers who felt closer and more connected to their students were more likely to experience joy and less likely to experience anxiety and anger. Similarly, Hargreaves (2000) documented that positive teacher-student interactions were associated with teachers' joy and satisfaction.

Although few studies have specifically examined relational goals and subjective well-being in teaching populations, the available evidence points to positive associations with affect and enjoyment (Daumiller et al., 2019; Wang et al., 2017). However, recent research by Chang and Hall (2022) suggests that there may be more nuanced processes at work with this goal type. They proposed that relational goals can be further differentiated into three types: (1) striving to improve relationships with students, (2) avoiding losing meaningful connections with students, and (3) avoiding negative perceptions from students. These distinctions may impact well-being variables in different ways. While this dissertation did not assess these further differentiations, and relational goals are expected to be broadly beneficial for subjective well-being, these nuances remain important for interpreting the findings.

Work Avoidance Goals

Work avoidance goals involve strivings to reduce work and get by with minimal effort. This goal type has been linked to a lack of effort and perceived value, and can generally be expected to have negative associations with subjective well-being (see King & McInerney, 2014). Notably, researchers have suggested that work avoidance goals in teaching contexts may function as a short-term coping strategy to alleviate stress (Butler, 2012; Daumiller & Dresel, 2020a). In this context, work avoidance goals may initially limit stress by reducing

the workload (e.g., referring problems to colleagues), but over time, they are likely to lead to negative consequences, such as minimal progress and aversive self-thoughts.

Indeed, studies on school teachers have found work avoidance goals to be associated with higher levels of anxiety, occupational strain, burnout, and anger, as well as lower levels of enjoyment (Janke, Bardach et al., 2019; Nitsche et al., 2013; Retelsdorf et al., 2010; Wang et al., 2017). Similar results have been found in faculty, including negative links positive affect and positive links with burnout (Daumiller et al., 2019; Daumiller & Dresel, 2021). These consistently detrimental findings suggest negative links with subjective well-being in teaching populations.

2.3.2. Cross-Contextual Differences

When examining psychological phenomena, it is important to consider both the similarities and differences that may arise among people from different contexts. While many aspects of human thought and behavior are considered universal, contextual differences can lead to significant variations in how people think, feel, and act. A primary goal of cross-contextual research is to expand knowledge “beyond the confinements of our particular surrounding context” (Papayiannis & Anastassiou-Hadjicharalambous, 2011, p. 440).

In relation to the focus of the present dissertation, the few studies that have explored achievement goals and subjective well-being in faculty have concentrated on samples from Germany, specifically those teaching at universities. Therefore, it is unclear how these associations might differ when considering other contextual factors, such as the country or type of higher education institution in which faculty members work. Understanding potential similarities and differences is essential for determining the extent to which findings from German samples can be generalized to other faculty populations.

Faculty Members from Different Countries

Researchers have emphasized the importance of considering participants from non-Western countries in psychological research. This is particularly relevant because most studies—including those investigating achievement goals and aspects of subjective well-being in teaching populations—have predominantly been conducted in Western societies, which can introduce biases in knowledge and limit generalizability (see Henrich et al., 2010). Given the substantial cultural and systematic differences between Western and non-Western countries, it is crucial for future studies to acknowledge and empirically test whether these differences influence the associations between psychological constructs across different countries.

To address this issue in the present dissertation, a focus was placed on examining achievement goals and subjective well-being in faculty members from Germany, the USA, and India. Germany and the USA are individualistic countries where most research on achievement goals in teaching populations has been conducted. In these countries, values

such as individual achievement, independent thinking, and personal autonomy are highly encouraged (Hofstede, 2001; Schwartz, 2004). India, however, represents a collectivistic society outside the Western hemisphere, where values like interdependence, group success, hierarchy, self-construction in relation to others, and belonging to in-groups that emphasize loyalty are prioritized (Misra et al., 2006; Misra, 2001).

Given these cultural differences, people from individualistic and collectivistic countries may differ in how they define the self and in their reasons for pursuing different goals, which could lead to variations in the associations between achievement goals and subjective well-being (see Urdan, 2004). For example, in a study on goals and subjective well-being in undergraduate students, Elliot et al. (2001) suggested that students from individualistic cultures who strive to “stand out” through individual accomplishments may experience negative associations between avoidance goals and subjective well-being. In contrast, students from collectivist cultures, who aim to “fit in” and maintain group harmony, were not expected to show the same negative associations between avoidance goals and subjective well-being, due to the cultural emphasis on avoiding negative outcomes. Indeed, the findings from this study supported these hypotheses. Therefore, similar differences in the associations between achievement goals and subjective well-being may be plausible when comparing faculty members from different countries.

Faculty Members from Different Institution Types

In addition to exploring potential differences among faculty members from different countries, it is also important to consider the types of higher education institutions in which they work. A key distinction that persists in many countries (including Germany, the US, and India) is whether higher education institutions are more focused on teaching or research. Teaching-oriented institutions prioritize equipping students with the skills and knowledge needed for the labor market, meaning faculty in these institutions may place greater value on and engage more with teaching tasks. In contrast, research-oriented institutions focus on advancing theoretical and empirical developments in various fields, with a strong emphasis on planning and conducting research. As a result, teaching goals may be more closely linked to subjective well-being for faculty employed in teaching-oriented institutions, where their identities and professional responsibilities are more deeply tied to teaching.

Approaches to Examining Cross-Contextual Differences

When examining psychological phenomena across contexts different theoretical and methodological approaches can be considered. In terms of theoretical perspectives, the literature distinguishes between absolutist, relativist, and universalist views (Zuscho & Clayton, 2011). The absolutist perspective posits that psychological processes are universal across contexts with little variability. In contrast, the relativist perspective assumes that samples should only be studied within their own corresponding contexts as opposed to

making cross-contextual generalizations. The universalist approach, which combines elements from absolutist and relativist perspectives, is particularly relevant for cross-contextual motivation research (Pintrich, 2003). This approach assumes that basic motivational processes are universal across cultures and contexts, but acknowledges that their manifestations may be influenced by contextual factors. Thus, both similarities and differences across contexts are plausible and should be empirically tested, rather than assumed (see King et al., 2017; Pintrich, 2003; Zusho & Clayton, 2011).

In terms of methodological approaches in cross-contextual research, measurement invariance and examining differences in associations between constructs are particularly relevant. Measurement invariance analyses determine whether a measurement instrument functions equally well for different groups of people (e.g., faculty members from different countries or institution types) or across different points in time. There are different types of measurement invariance (i.e., configural, metric, scalar, and strict invariance), which either allow or restrict subsequent cross-contextual analyses based on the level of invariance achieved. An overview of the types of measurement invariance and their respective interpretations can be found in Table 2, as well as in the work of Wang et al. (2017) and Van de Schoot et al. (2012).

Adding to this, it is possible to make further restrictions, for example, to test for differences in associations across groups. As suggested by Pintrich (2003), it is important for research to go beyond mean-level differences and to “grapple with when, why, and how [associations] do or do not hold for different groups” (p. 682). Therefore, in this dissertation, an emphasis was placed on assessing measurement invariance across contexts and time, and on investigating whether the associations between achievement goals and subjective well-being were consistent across different contexts.

Summary

In conclusion, there is a clear need for research on achievement goals and subjective well-being in faculty that takes contextual differences into account. Exploring cross-country and cross-institution variations offers a valuable opportunity to better understand how these relationships may differ in diverse settings. By considering both similarities and differences, researchers can ensure that findings are more broadly applicable across various faculty populations, which is particularly important for the development of interventions and support measures that meet the specific needs of faculty members in different contexts.

Table 2*Overview of Measurement Invariance Testing*

Type of invariance	Meaning
Configural	Configural invariance suggests that the number of factors and the factor patterns are the same across groups. Attainment of configural invariance implies that a latent construct can be meaningfully discussed across groups.
Metric	Metric invariance sets the factor loadings to be equal across groups. Attainment of metric invariance means that a latent construct holds the same meaning across groups.
Scalar	Scalar invariance sets the intercepts and factor loadings to be equal across groups. Attainment of scalar invariance means that both the meaning of a construct and the levels of the respective items are equal across groups.
Strict	Strict invariance sets the intercepts, factor loadings, and residual variances to be equal across groups. Attainment of strict invariance means that a latent construct is measured identically across groups.

2.3.3. Temporal Ordering***Achievement Goals as Predictors of Subjective Well-being***

Within achievement goal research, it is often implied that individual differences in achievement goals lead to different well-being outcomes. Thus, achievement goals are frequently portrayed as predictors, despite most studies relying on cross-sectional designs or focusing only on unidirectional effects (see King & McInerney, 2014). The theoretical foundation for considering achievement goals as predictors is based on how individuals interpret achievement situations, which influences their approach to tasks and how they manage experiences. Here, achievement goals can be understood as comprehensive psychological programs that shape cognitive, emotional, and behavioral responses (Elliot & Dweck, 1988).

For instance, social cognitive theories on self-regulation suggest that subjective well-being may vary depending on whether one is striving toward (approaching) or away from (avoiding) particular goals (Carver & Scheier, 1998). Approach goals are thought to foster increased subjective well-being by promoting progress toward desirable states, whereas

avoidance goals can foster decreased subjective well-being through worry and stress caused by trying to evade failure or aversive outcomes (Elliot et al., 2011). Moreover, Pekrun et al.'s control-value theory (2006, 2009) suggests that achievement goals influence perceived control over a situation and the value assigned to outcomes, which directly impacts emotional experiences, a core aspect of subjective well-being. Together, these perspectives suggest that achievement goals play an important role in shaping subjective well-being.

Subjective Well-being as a Predictor of Achievement Goals

According to the bidirectional model of affect and achievement goals (Linnenbrink & Pintrich, 2002), when individuals feel positive and satisfied, they may more easily retrieve positive self- and task-related information and perceive a broader range of available resources, leading to stronger approach goal strivings. Conversely, negative emotions may prompt the retrieval of negative self- and task-related information, as well as a perceived lack of resources, fostering avoidance and hindering approach goal strivings (see Daniels et al., 2009; Linnenbrink & Pintrich, 2002). This rationale also parallels Fredrickson's broaden-and-build theory (2001), which suggests that positive affect broadens thought-action repertoires, while negative affect has a narrowing effect. This aligns with the idea that individuals who feel well are likely to "think, feel, and act in ways that promote both resource building and involvement with approach goals" (Lyubomirsky et al., 2005, p. 804; see also Fredrickson, 1998, 2001). Taken together, it is reasonable to assume that subjective well-being may also influence the achievement goals individuals adopt.

Achievement Goals and Subjective Well-being: Reciprocally Intertwined

Beyond viewing achievement goals as either predictors or outcomes of subjective well-being, it is also possible that these constructs reciprocally influence each other over time. Reciprocal relationships occur when two variables mutually influence one another; that is, each variable can act as both a cause and an effect. Within self-regulation theories, reciprocal relations and feedback loops are considered essential for understanding psychological mechanisms. Additionally, several studies have found evidence of such relationships between achievement goals and various outcomes (e.g., An et al., 2021; Daumiller & Dresel, 2020a; Daumiller & Dresel, 2021; King, 2014).

In the context of the present research, this suggests that adaptive goals, such as task approach goals, can create a positive cycle by enhancing subjective well-being, which in turn promotes further adaptive goal striving. Conversely, maladaptive goals, such as work avoidance goals, may lead to diminished well-being, reinforcing further maladaptive goal striving and perpetuating a negative cycle. However, more research is needed to better understand how achievement goals and well-being interact over time, particularly in terms of causality and direction.

Summary

To develop practical initiatives aimed at improving faculty members' motivation and subjective well-being, longitudinal studies are essential to clarify the temporal relationships between these constructs. While this review has discussed three potential causal pathways between achievement goals and subjective well-being, it is also possible that these constructs change together over time due to an unobserved third variable, rather than through isolated temporal effects. Overall, there is a need for research that investigates how achievement goals and subjective well-being evolve over time in faculty members, offering deeper insights into the underlying causal mechanisms and enabling more targeted interventions.

3. Research Overview and Questions

Given that faculty members have consistently been found to struggle with their subjective well-being, it is important to understand the role that psychological factors may play in supporting this population. Taking a motivational perspective, the focus of this dissertation was to develop a comprehensive understanding of the relationships between faculty members' achievement goals and their subjective well-being. This objective was addressed through three research questions, each targeting a research gap identified in the theoretical background of this dissertation.

3.1. Research Question I

Research on school teachers and preliminary findings on university faculty provide a convincing basis to assume that faculty members' achievement goals are closely linked to their subjective well-being. However, more research is needed to gain a detailed overview of these associations and to understand their consistency across studies. Additionally, the literature lacks studies that incorporate recent developments in achievement goal research and account for the multifaceted definition of subjective well-being. Therefore, the first research question of this dissertation addresses: *How are faculty members' achievement goals associated with different facets of their subjective well-being?*

3.2. Research Question II

Since the few studies examining faculty members' achievement goals and aspects of their subjective well-being have been conducted on German samples, it is necessary to assess whether these associations differ across faculty members from other countries and institution types. This information is important for determining whether underlying psychological processes are universal and can be generalized to other faculty populations. To address this gap, the second research question of this dissertation asks: *Are the associations between achievement goals and aspects of subjective well-being robust across faculty members from different countries and institution types?*

3.3. Research Question III

Studies have yet to examine the associations between faculty members' achievement goals and multifaceted subjective well-being over time. The available insights stem from cross-sectional designs, leaving a research gap regarding how these variables are linked longitudinally. Understanding these associations over time can support the development of longitudinal and intervention studies, and subsequently, practical initiatives to support faculty well-being. Thus, the final question posed in this dissertation is: *What is the temporal ordering of faculty members' achievement goals and subjective well-being from a longitudinal perspective?*

3.4. Overview of Empirical Studies

To address the research questions above, three empirical studies were conducted as part of this dissertation. Study I examined the associations between faculty members' achievement goals and the affective facets of their subjective well-being, contributing to Research Question I. Study II addressed both Research Questions I and II by assessing faculty members' achievement goals and multiple facets of their subjective well-being, while also testing whether these associations were generalizable across countries and higher education institution types. Lastly, Study III investigated the associations between achievement goals and subjective well-being over time, contributing to Research Questions I and III. An overview of these studies can be found in Table 3, and they are discussed in detail in section 4. The measurement scales used to assess achievement goals and subjective well-being are displayed in Table 4.

Table 3*Overview of the Empirical Studies Conducted in the Present Dissertation*

	Study I	Study II	Study III
Research questions	RQ I	RQ I, RQ II	RQ I, RQ III
Study design	Cross-sectional	Cross-sectional	Longitudinal
Data collection	Winter semester 2019/2020	Winter semester 2018/2019	Winter semester 2020/2021
Sample size	$N = 439$	$n_{Germany} = 598$ $n_{USA} = 344$ $n_{India} = 393$	$N = 493$
Age	$M = 38.4$ ($SD = 10.1$ years)	$M = 43.6$ ($SD = 9.2$ years)	$M = 41.0$ ($SD = 11.4$ years)
Gender	47% females 52% males 1% undisclosed	Germany: 35.3% female USA: 39.8% female India: 22.4% female	44% females 55% males 1% nonbinary
Teaching experience	$M = 8.6$ ($SD = 8.1$ years)	$M = 14.3$ ($SD = 10.4$ years)	23% ≤ 2 years 20% = 2–5 years 56% ≥ 5 years
Academic position	154 Academic staff without PhD 81 Professors 204 Academic staff	28 Academic staff without PhD 915 Professors 392 Academic staff	163 Academic staff without PhD 153 Professors 177 Academic staff
Primary analyses	Multiple regression Moderation analysis	Structural equation modelling Measurement invariance	Latent change score modelling Measurement invariance

Table 3 (continued)*Overview of the Empirical Studies Conducted in the Present Dissertation*

	Study I	Study II	Study III
Digital object identifier (pre-print)		10.31234/osf.io/gqyuj	10.31219/osf.io/4dyu9
Digital object identifier (publication)	10.3389/fpsyg.2020.01484	10.1016/j.ijer.2022.101942	

Note. As the manuscript for Study III is still under review, the manuscript and analyses/results may be subject to change during the peer review process and may not reflect the final version.

Table 4*Overview of Measurement Instruments and Sample Items*

Study	Construct	Sample Item	Source	Items
<i>Achievement goals</i>				
		Item stem: "In my current teaching activities ..."		
I, II, III	Task approach	"... I want to fulfil the different requirements very well."	Daumiller et al., 2019	4
I, II, III	Learning approach	"... I want to constantly improve my competences."	Daumiller et al., 2019	4
I, II	Task avoidance	"... I want to avoid fulfilling the different requirements poorly."	Daumiller et al., 2019	4
I, II	Learning avoidance	"...I want to avoid not learning something new"	Daumiller et al., 2019	4
I, II, III	Appearance approach	"... I want to be perceived as competent."	Daumiller et al., 2019	4
I, II	Normative approach	"... I want to be better than my colleagues."	Daumiller et al., 2019	4
I, II, III	Appearance avoidance	"... I want to avoid being perceived as incompetent."	Daumiller et al., 2019	4
I, II	Normative avoidance	"... I want to avoid being worse than my colleagues."	Daumiller et al., 2019	4
I, II, III	Relational	"... it is important to me to achieve a personal connection with students."	Daumiller et al., 2019	4
I, II, III	Work avoidance	"... I want to have as little to do as possible."	Daumiller et al., 2019	4
<i>Positive and negative affect facets of subjective well-being</i>				
I	Enjoyment	"How often did you experience <i>enjoyment</i> in teaching the past month?"	Goetz et al., 2016	1
I	Pride	"How often did you experience <i>pride</i> in teaching the past month?"	Goetz et al., 2016	1
I	Anger	"How often did you experience <i>anger</i> in teaching the past month?"	Goetz et al., 2016	1
I	Anxiety	"How often did you experience <i>anxiety</i> in teaching the past month?"	Goetz et al., 2016	1

Table 4 (continued)*Overview of the Measurement Instruments and Sample Items*

Study	Construct	Sample Item	Source	Items
<i>Positive and negative affect facets of subjective well-being</i>				
I	Shame	“How often did you experience <i>shame</i> in teaching the past month?”	Goetz et al., 2016	1
I	Boredom	“How often did you experience <i>boredom</i> in teaching the past month?”	Goetz et al., 2016	1
II	Enjoyment	“I generally <i>enjoy</i> teaching.”	Frenzel et al., 2016	4
II	Anger	“I often feel <i>annoyed</i> while teaching.”	Frenzel et al., 2016	4
II	Anxiety	“I feel <i>uneasy</i> when I think about teaching.”	Frenzel et al., 2016	4
III	Positive affect	“I have felt <i>interested</i> in my teaching activities the past month.”	Watson et al., 1988	10
III	Negative affect	“I have felt <i>distressed</i> in my teaching activities the past month.”	Watson et al., 1988	10
<i>Domain satisfaction facet of subjective well-being</i>				
II	Personal accomplishment	“I have achieved many rewarding things in my work as a teacher.”	Maslach et al., 1996	8
III	Job satisfaction	“All in all, I am satisfied with my role as a higher education teacher.”	OECD, 2014	4
<i>Global life satisfaction facet of subjective well-being</i>				
II, III	Life satisfaction	“In most ways my life is close to my ideal.”	Diener et al., 1985	5

4. Empirical Studies

4.1. Study I

The first study in this dissertation focused on examining the interrelations between faculty members' achievement goals and their discrete emotions, which are considered core facets of subjective well-being.³ The study aimed to provide a detailed overview of how different achievement goals are associated with positive and negative discrete emotions frequently experienced in the university teaching context, specifically enjoyment, pride, anger, anxiety, shame, and boredom. Therefore, Study I addressed Research Question I, which seeks to understand the associations between achievement goals and aspects of faculty members' subjective well-being.

4.1.1. Background

Research shows that teachers' emotions play a critical role in their teaching quality and are an integral part of their overall well-being (e.g., Frenzel et al., 2009; Frenzel et al., 2016; Yin et al., 2018; Chen, 2019). However, most of this research has focused on school teachers, leaving a gap in understanding how emotions influence faculty members in higher education. The limited studies on faculty members' emotions suggest that they also have a significant impact, influencing factors such as perceived teaching success (Stupnisky et al., 2019a; Stupnisky et al., 2019b), teaching appraisals (Thies & Kordts-Freudinger, 2019b), and the balance between professional and personal life (Stupnisky et al., 2019b).

Given their importance, further research is needed to explore the factors contributing to faculty members' emotions. From a motivational perspective, achievement goals have been found to have strong theoretical and empirical links with discrete emotions in students (e.g., Pekrun et al., 2006; Schutz & Pekrun, 2007) and school teachers (Janke, Bardach et al., 2019; Wang et al., 2017). However, these relationships have not yet been thoroughly examined among faculty members.

Achievement goals are posited to regulate achievement-related thoughts and behaviors that are closely tied to emotions (Pekrun et al., 2006). Pekrun et al. (2006, 2009) proposed a model based on the trichotomous framework of achievement goals (see section 2.2.2). According to this model, mastery goals emphasize the controllability and positive value of achievement activities and outcomes, which promotes positive activity-related emotions (e.g., enjoyment) and reduces negative activity-related emotions (e.g., boredom, anger). Performance approach goals, focused on achieving success and the controllability and value of outcomes, are expected to increase positive outcome-related emotions (e.g., pride).

³ The reference for the published research article corresponding to Study I is:

Rinas, R., Dresel, M., Hein, J., Janke, S., Dickhäuser, O., & Daumiller, M. (2020). Exploring university instructors' achievement goals and discrete emotions. *Frontiers in Psychology, 11*(1484), 1–13.
<https://doi.org/10.3389/fpsyg.2020.01484>

In contrast, performance avoidance goals, centered around potential failure and the uncontrollability and negative value of outcomes, are linked to increased negative outcome-related emotions (e.g., anxiety, shame).

Beyond the trichotomous model, evidence suggests that mastery avoidance goals are associated with emotions such as anger and anxiety (Huang, 2011), while work avoidance goals are linked to anxiety, boredom, negative affect, and reduced enjoyment (Janke, Bardach et al., 2019; Jarvis & Seifert, 2002; King & McInerney, 2014). Additionally, relational goals have related to enjoyment and positive affect (Daumiller et al., 2019; Wang et al., 2017).

Based on these theoretical and empirical findings, a set of hypotheses was formulated regarding the associations between faculty members' achievement goals and discrete emotions, as illustrated in Figure 4. Potential differences in the differentiated components of mastery and performance goals were examined on an exploratory basis, given the limited evidence on how these components might differ specifically in terms of emotional outcomes.

Figure 4

Hypotheses for Study I: Associations between Achievement Goals and Emotions

Mastery Approach (Task Approach, Learning approach)	→	Enjoyment (+), Anger (−), Boredom (−)
Mastery Avoidance (Task avoidance, Learning avoidance)	→	Anger (+), Anxiety (+), Boredom (+)
Performance Approach (Appearance approach, Normative approach)	→	Pride (+)
Performance Avoidance (Appearance avoidance, Normative avoidance)	→	Anxiety (+), Shame (+)
Relational	→	Enjoyment (+)
Work Avoidance	→	Anxiety (+), Boredom (+), Shame (+)

4.1.2. Methods

Participants and Procedure

The study was conducted as a cross-sectional online survey. Participants included 439 faculty members (47% female; $M_{\text{age}} = 38.44$ years, $SD = 10.10$; $M_{\text{teaching experience}} = 8.56$ years, $SD = 8.12$)⁴ employed at 18 universities in Germany and Austria. Participants were given a choice of receiving a 5 € voucher or donation to a charity for their time.

Measures

Achievement goals were measured using the scale by Daumiller et al. (2019), where following the item stem, “In my current teaching activities...”, participants responded to four

⁴ Doctoral students are typically employed as regular faculty members, with contracts that include official teaching and research responsibilities in addition to their PhD research.

items for each of the 10 goal types distinguished in the hexagon model (see section 2.2.5) on a scale from 1 (*do not agree at all*) to 8 (*agree completely*). All goals had adequate reliabilities ($\omega \geq .79$).

Faculty were also asked how often within the past month they experienced enjoyment, pride, anger, anxiety, shame, and boredom on a scale from 1 (*not at all*) to 5 (*very often*) using single items developed by Goetz et al. (2016). Sample items can be found in Table 4.

Analyses

To answer the research question of Study I, multiple regression analyses were conducted in Mplus 8.1 (Muthén and Muthén, 2017). Multiple regression is a statistical technique used to examine the relationships between a dependent variable and several independent variables. In this study, the discrete emotions were treated as dependent variables, while the achievement goals served as independent variables. These variables were modeled at the manifest level. Separate models were computed for each discrete emotion (i.e., enjoyment, pride, anger, anxiety, shame, and boredom), with all achievement goals regressed on the given emotion in each model. Additionally, correlations between the goals were modeled.

To account for potential confounding effects, age, academic rank, and gender were controlled for in all models. The robust weighted least squares (WLSMV) estimator was used to estimate the models, as the emotions were measured as single items with five response categories.

4.1.3. Findings

Overall, faculty members' achievement goals showed distinct associations with their discrete emotions (see Table 5). Mastery approach goals, specifically learning approach goals, were positively associated with joy and negatively with anger and boredom, while no significant effects were found for task approach goals. Mastery avoidance (learning avoidance) goals were linked to increased anger. For performance approach goals, appearance approach goals were positively associated with pride. In contrast, performance avoidance (appearance avoidance) goals were linked to anxiety and shame. Relational goals were associated with boredom and shame, and work avoidance goals were linked to less joy and more boredom and shame. No significant associations were observed for task approach, task avoidance, or normative goals.

In summary, these findings suggest that achievement goals are similarly relevant to faculty emotions as they are for students and school teachers. Mastery (learning) approach goals appear particularly adaptive, while performance (appearance) avoidance and work avoidance goals seem more maladaptive. The unique associations for more fine-grained goals highlight the value of using a nuanced goal framework to assess faculty emotions.

Table 5*Multiple Regression Analyses for Achievement Goals as Predictors of Discrete Emotions*

	Model 1: Enjoyment	Model 2: Pride	Model 3: Anger	Model 4: Anxiety	Model 5: Shame	Model 6: Boredom
Achievement goals						
Learning approach	.11 (.06)	.09 (.07)	-.18 (.07)	.08 (.07)	.05 (.08)	-.16 (.07)
Learning avoidance	-.05 (.06)	.01 (.07)	.17 (.06)	.05 (.07)	-.08 (.08)	.04 (.07)
Task approach	.10 (.06)	.06 (.07)	-.07 (.07)	-.05 (.07)	-.05 (.07)	-.03 (.07)
Task avoidance	.04 (.06)	.03 (.08)	-.05 (.07)	-.07 (.06)	.04 (.08)	-.04 (.07)
Appearance approach	-.07 (.06)	.13 (.06)	.06 (.06)	-.02 (.07)	.02 (.08)	-.01 (.07)
Appearance avoidance	.05 (.07)	.02 (.07)	-.09 (.08)	.21 (.09)	.24 (.10)	-.06 (.09)
Normative approach	.01 (.07)	.05 (.06)	.04 (.06)	.05 (.06)	-.07 (.07)	.03 (.07)
Normative avoidance	.05 (.08)	-.07 (.08)	.03 (.07)	-.08 (.08)	-.11 (.09)	-.03 (.09)
Relational	.05 (.05)	.04 (.05)	-.02 (.06)	.04 (.05)	.13 (.05)	.10 (.05)
Work avoidance	-.13 (.06)	-.02 (.06)	-.08 (.06)	.03 (.06)	.11 (.06)	.15 (.05)
Control variables						
Age	.08 (.08)	-.01 (.06)	-.06 (.07)	-.20 (.08)	-.10 (.08)	-.20 (.07)
Full professor (1 = yes, 0 = no)	.05 (.06)	.04 (.06)	.10 (.06)	.11 (.07)	-.02 (.07)	-.07 (.07)
PhD (1 = yes, 0 = no)	-.03 (.07)	.01 (.06)	.01 (.06)	.14 (.06)	.02 (.07)	.05 (.06)
Gender (1= male, 2 = female)	.06 (.05)	.03 (.05)	-.01 (.05)	.17 (.05)	.04 (.06)	-.10 (.05)
<i>R</i> ²	.09	.06	.05	.15	.10	.17

Note. Reported are the standardized regression coefficients with their standard errors in brackets. Running the model without age, academic rank, and gender as controls yielded no significant differences in parameter estimates. Statistically significant coefficients ($p < .05$) are displayed in boldface. All models were fully saturated.

4.2. Study II

The second study in this dissertation focused on examining the associations between faculty members' achievement goals and their multifaceted subjective well-being, which encompassed not only their discrete emotions but also their job satisfaction and life satisfaction.⁵ A secondary aim was to investigate whether these associations were generalizable across faculty members from different countries and types of higher education institutions. Study II, therefore, contributed to both Research Questions I and II: understanding the associations between faculty members' achievement goals and subjective well-being, and assessing the generalizability of these associations across contexts.

4.2.1. Background

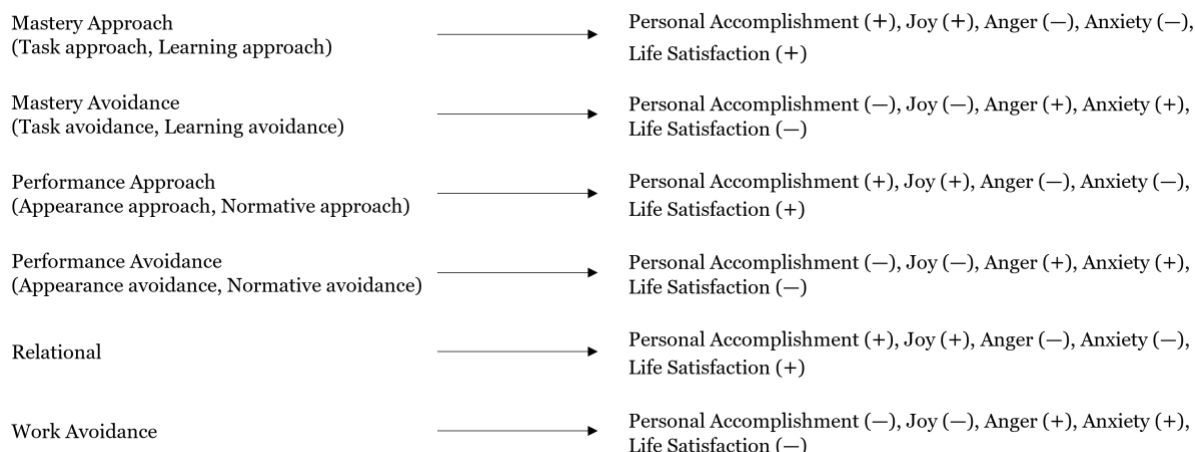
Studies investigating aspects of faculty members' subjective well-being have often focused on institutional and demographic factors, which explain limited variability in behavioral and affective outcomes (see Watt & Richardson, 2020). Consequently, there is a need to explore psychological factors that are relevant to faculty members' subjective well-being.

Motivational factors, particularly achievement goals, have consistently been linked to faculty members' occupational perceptions and experiences, with initial evidence also pointing to important connections with aspects of their subjective well-being (see section 2.3.1). However, studies have not yet examined the relationships between faculty members' achievement goals and subjective well-being from a multifaceted perspective, and little is known about how achievement goals influence subjective well-being in general.

Moreover, research on this topic has primarily focused on German faculty members employed in universities, which limits our understanding of whether these findings can be generalized to faculty from other countries or different types of higher education institutions (see section 2.3.2). Understanding how these relationships function in diverse contexts is important to ensure that initiatives aimed at improving well-being are relevant and effective across different institutional and cultural settings. Without broader cross-context exploration, key psychological processes related to achievement goals and subjective well-being may not be fully captured in other academic environments.

Based on prior theoretical and empirical evidence regarding achievement goals and subjective well-being in teaching populations (see section 2.3.1), hypotheses were generated to explore how these associations might function in faculty members (see Figure 5). As in Study I, potential differences in the further differentiated components of mastery and performance goals were examined on an exploratory basis.

⁵ The reference for the published research article corresponding to Study II is:
Rinas, R., Dresel, M., & Daumiller, M. (2022). Faculty subjective well-being: An achievement goal approach. *International Journal of Educational Research*, 115, Article 101942. <https://doi.org/10.1016/j.ijer.2022.101942>

Figure 5*Hypotheses for Study II: Associations between Goals and Subjective Well-being*

Regarding potential differences in the associations between achievement goals and aspects of subjective well-being across faculty members from different countries and types of higher education institutions, in line with the universalist approach (see section 2.3.2), it was hypothesized that these associations would be invariant across contexts.

4.2.2. Methods***Participants and Procedure***

A sample of 1,335 faculty members ($M_{\text{age}} = 43.58$ years, $SD = 9.19$; $M_{\text{teaching experience}} = 14.3$ years, $SD = 10.4$) from Germany ($n = 598$; female = 35.3%; 53.0% employed at research-oriented institutions), the USA ($n = 344$; female = 39.8%; 54.4% employed at research-oriented institutions), and India ($n = 393$; female = 22.4%; 66.4% employed at research-oriented institutions) participated in an online survey assessing their achievement goals and multifaceted subjective well-being. Participants were provided with vouchers as an incentive.

Measures

Faculty members' achievement goals were assessed using the scale developed by Daumiller et al. (2019). Following the item stem, "In my current teaching activities...", participants rated four items for each goal type on a scale from 1 (*do not agree at all*) to 8 (*agree completely*). All goals demonstrated adequate reliabilities ($\omega \geq .77$).

Following the recommendations of Diener (1985), multiple facets of faculty members' subjective well-being were assessed. For the positive and negative emotion facets, joy, anger, and anxiety were measured using a scale developed by Frenzel et al. (2016), with 4 items per emotion on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*), specifically in the context of teaching. For the domain satisfaction facet, personal accomplishment in their role as a teacher was assessed with 8 items on a scale from 1 (*never*) to 7 (*every day*). Lastly, life satisfaction, representing the global life judgment facet, was measured with five items rated on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All facets of subjective well-being

demonstrated good reliabilities, with the lowest being $\omega = .74$. Sample items can be found in Table 4.

Analyses

To examine the associations between faculty members' achievement goals and aspects of their subjective well-being, structural equation modelling was conducted using R and R-Studio Statistical Computing Software Version 4.0.2. (R Core Team, 2020). Structural equation modelling is used to model the relationships between dependent and independent variables at a latent level, using manifest variables as indicators. Latent variables represent unobservable psychological constructs (e.g., achievement goals, aspects of subjective well-being) inferred from manifest variables. Model fit statistics were generated and compared against literature-defined cut-off values to assess how well the model fits the data. According to Hu and Bentler's (1999) guidelines, CFI and TLI values $\geq .95$, and RMSEA and SRMR values $\leq .08$ indicate good fit. One key strength of modeling variables at a latent level, as opposed to a manifest level (as done in Study I), is that SEM accounts for measurement error, leading to more accurate estimations of associations.

Applying this approach to Study II, one overall model was specified, regressing all aspects of subjective well-being on all achievement goals. Both achievement goals and aspects of subjective well-being were modeled as latent variables, using item parcels as indicators to reduce model complexity (see Little et al., 2013). Correlations between achievement goals and between aspects of subjective well-being were also modeled. Given the non-normal distribution of the data, the maximum likelihood estimator with robust standard errors (MLR) was used (see Gao et al., 2020). Missing data ($\leq 13\%$ for each item) was addressed using full-information maximum likelihood estimation (FIML). Teaching experience, gender, tenure status, and PhD status were controlled for in the model.

Before conducting the structural equation modeling, measurement invariance analyses were performed to confirm that the constructs functioned consistently across different countries and types of higher education institutions (i.e., scalar invariance was confirmed; see section 2.3.2 and Table 2 for further details on measurement invariance). This was assessed using cut-off indices that indicate whether there is a statistically significant deterioration in model fit between different levels of invariance (e.g., between configural and metric, metric and scalar, or scalar and strict invariance). Following Chen (2007), a deterioration of CFI $\geq .010$ and RMSEA $\geq .015$ or SRMR $\geq .010$ was considered indicative of noninvariance.

4.2.3. Findings

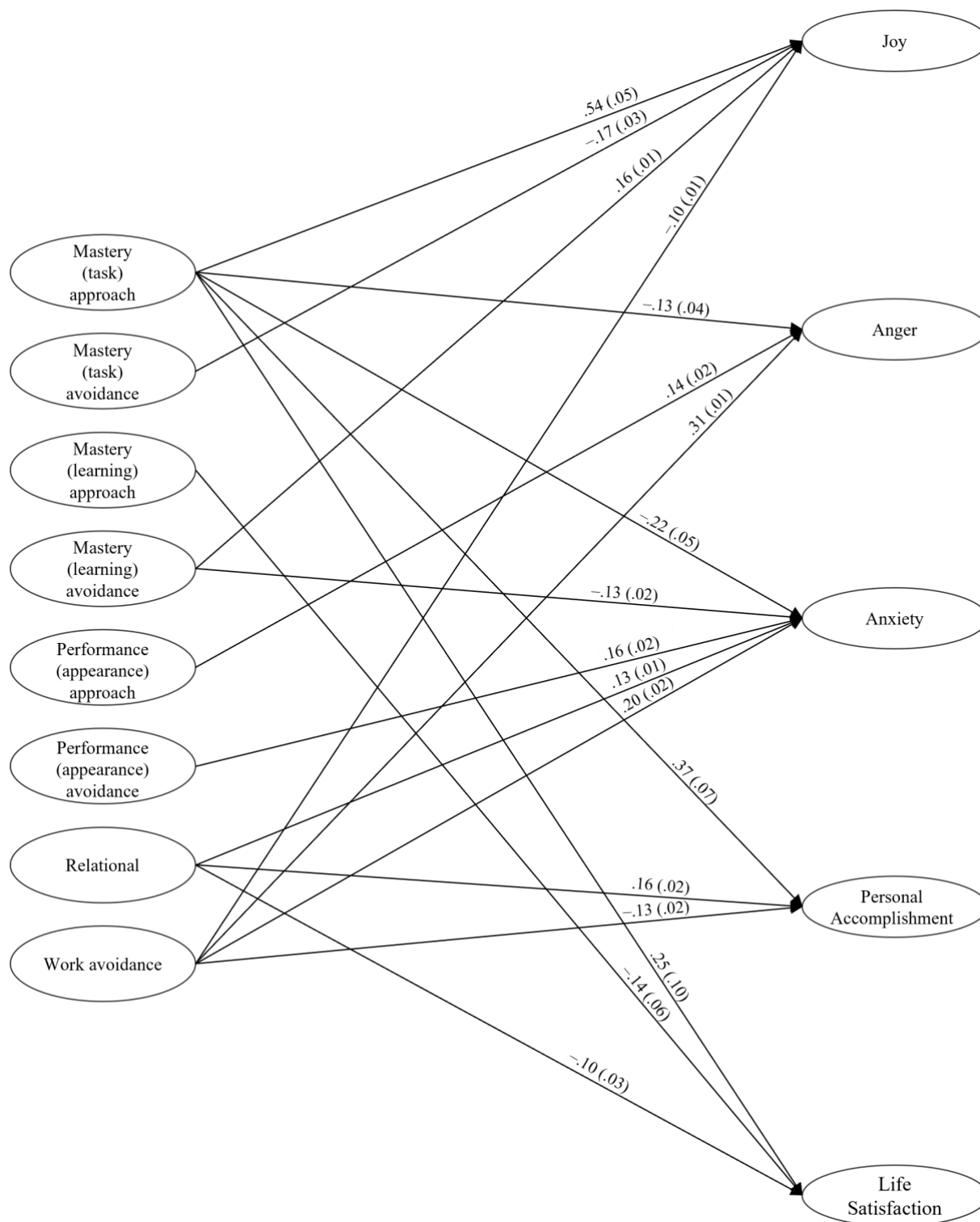
Statistically significant results from the overall structural equation model, which examined the associations between faculty achievement goals and aspects of subjective well-being, are visualized in Figure 6. Since no statistically significant findings were observed for

normative approach and normative avoidance goals, they were excluded from the visualization. The model demonstrated a good fit to the data (RMSEA = .04, SRMR = .03, CFI = .98; TLI = .97; $\chi^2 = 975.28$; $df = 364$; $p < .01$), with achievement goals explaining up to 32% of the variance in aspects of subjective well-being.

Moreover, restricting the regressions in the overall structural equation model to be equal across groups and comparing this to the strict measurement invariance step did not result in a statistically significant deterioration in model fit. Therefore, the associations can be considered generalizable across faculty members from Germany, the USA, and India, as well as across both teaching- and research-oriented higher education institutions.

To summarize, for mastery approach goals, task approach goals were positively associated not only with faculty members' emotions but also with their personal accomplishment and life satisfaction. In terms of mastery avoidance goals, task avoidance goals were negatively associated with joy, while learning avoidance goals were positively linked to joy and negatively linked to anxiety. Regarding performance approach goals, appearance approach goals were positively associated with anger. For performance avoidance goals, appearance avoidance goals were positively linked to anxiety. Relational goals showed mixed effects: they were positively associated with increased anxiety and decreased life satisfaction but also had a positive link with personal accomplishment. Lastly, work avoidance goals were negatively associated with joy and personal accomplishment, and positively associated with anger and anxiety.

In line with Study I and previous research on teaching populations (e.g., Daumiller et al., 2019; Janke, Bardach et al., 2019; Nitsche et al., 2013), achievement goals emerged as important motivational factors related to faculty members' subjective well-being. Specifically, mastery approach goals were beneficially associated with multiple facets of well-being, while performance avoidance and work avoidance goals were negatively associated with well-being. Moreover, these associations remained robust across faculty from different countries and institutions, suggesting that goal striving and well-being processes in faculty may transcend these contexts.

Figure 6*Results of Structural Equation Model*

Note. Displayed are the results of the structural equation model examining the relations between faculty members' achievement goals and aspects of their subjective well-being.

4.3. Study III

The third study in this dissertation focused on assessing the associations between faculty members' achievement goals and multifaceted subjective well-being over time (one semester).⁶ As opposed to cross-sectional designs, this study focused on providing insights into the temporal ordering of achievement goals and aspects of subjective well-being in faculty. Accordingly, this study addressed Research Questions I and III, which focused on understanding the associations between faculty achievement goals and subjective well-being, and how these relationships evolve over time.

4.3.1. Background

As documented in prior research, as well as in Studies I and II within this dissertation, faculty members' achievement goals and subjective well-being are intricately related. However, studies have yet to provide insights into the causal directions of these relationships. It is not yet known whether achievement goals predict subjective well-being, whether subjective well-being predicts achievement goals, or if both directions are plausible through reciprocal relations.

The theoretical literature surrounding this topic is mixed (see section 2.3.3.). Achievement goals are thought to shape perceptions of achievement situations by influencing emotions, cognitions, and behaviors, positioning them as potential predictors of subjective well-being. According to control-value theory (Pekrun, 2006), goals influence individuals' perceptions of control and the value attributed to outcomes, which directly affects emotional and well-being-related outcomes. Mastery and performance approach goals, for example, are associated with greater control and value, fostering positive emotions, while performance avoidance goals are linked to less control and a focus on potential failure, leading to negative emotions. Conversely, subjective well-being itself may influence goal adoption. The broaden-and-build theory (Fredrickson, 2001) posits that positive emotions expand cognitive and emotional resources, which may facilitate approach-oriented goals and adaptive coping strategies. In contrast, negative emotional states can narrow focus and foster avoidance behaviors, potentially leading to maladaptive goal-setting processes.

Despite these theoretical propositions, empirical evidence on the direction of these associations remains sparse. To date, no longitudinal studies have investigated these relationships in faculty samples, leaving a gap in understanding how well-being and achievement goals influence each other over time.

⁶ The reference for the submitted research article corresponding to Study III is:

Rinas, R., Kiltz, L., Dresel, M., & Daumiller, M. (2022). Temporal ordering of achievement goals and subjective well-being in faculty. *PsyArXiv*. <https://doi.org/10.31219/osf.io/4dyu9>.

As the manuscript is still under review, the manuscript and analyses/results may change during the peer review process and may not reflect the final version.

Thus, in Study III, in addition to exploring associations between achievement goals and aspects of subjective well-being in faculty (see Figure 7 for hypotheses), the causal ordering of these constructs over time was assessed exploratively. By examining these relationships longitudinally, this study aims to provide insights into the temporal dynamics between achievement goals and subjective well-being in faculty.

Figure 7

Hypotheses for Study III: Associations between Goals and Subjective Well-being

Mastery Approach (Task approach, Learning approach)	→	Positive Affect (+), Negative Affect (–), Job Satisfaction (+), Life Satisfaction (+)
Performance Approach (Appearance approach, Normative approach)	→	Positive Affect (+), Negative Affect (–), Job Satisfaction (+), Life Satisfaction (+)
Performance Avoidance (Appearance avoidance, Normative avoidance)	→	Positive Affect (–), Negative Affect (+), Job Satisfaction (–), Life Satisfaction (–)
Relational	→	Positive Affect (+), Negative Affect (–), Job Satisfaction (+), Life Satisfaction (+)
Work Avoidance	→	Positive Affect (–), Negative Affect (+), Job Satisfaction (–), Life Satisfaction (–)

4.3.2. Methods

Participants and Procedure

A sample of 493 faculty members (44% female; $M_{\text{age}} = 41.03$ years; $SD = 11.41$; teaching experience: 23% ≤ 2 years, 20% = 2–5 years, 56% ≥ 5 years) participated in an online survey assessing their achievement goals and multifaceted subjective well-being at the beginning (T1) and end of the winter semester of 2020/2021 (T2)⁷; i.e., across a period of three months. Participants were incentivized with a 5 € voucher and provided with infographics designed to support their subjective well-being.

Measures

Faculty members' achievement goals were assessed using the scale by Daumiller et al. (2019). Following the item stem, "In my current teaching activities...", faculty members' responded to four items for each goal type on a scale from 1 (*do not agree at all*) to 8 (*agree completely*). Instead of assessing all achievement goals distinguished in the hexagon model (see section 2.2.5) as in Study I and II, only task approach, learning approach, appearance approach, appearance avoidance, relational, and work avoidance goals were investigated⁸. All goals had good reliabilities at both timepoints ($\omega \geq .78$).

⁷ As this semester took place during the COVID-19 pandemic, relevant control variables were included to account for the potential impact of the pandemic on the findings.

⁸ It was expected that the normative component of performance goals would be less relevant in the COVID-19-impacted context of Study III due to teaching being held online with limited opportunities for teaching comparisons. Thus, only the appearance component was focused on in this study. Further, although mastery avoidance goals are theoretically relevant, as their relations with subjective well-being in faculty were found to be inconclusive across Study I and II, they were not analysed in the present study for reasons of parsimony.

For subjective well-being, similar to Study II, a multifaceted approach was taken. To assess positive and negative affect, faculty members responded to 10 feelings each on a scale developed by Watson et al. (1988) ranging from 1 (*very slightly or not at all*) to 5 (*very often*) with reference to their teaching activities within the past month. To examine domain satisfaction, a focus was placed on faculty members' job satisfaction using a 4-item scale developed for the TALIS 2013 survey (OECD, 2014). Therein, faculty responded to statements regarding their satisfaction with their role as a teacher on a scale from 1 (*strongly disagree*) to 4 (*strongly agree*). Lastly, for the global life judgement facet, overall satisfaction with life was examined using 5 items on a scale from 1 (*strongly disagree*) to 7 (*strongly agree*). All aspects of subjective well-being were found to have adequate reliabilities at both timepoints, with the minimum value being $\omega = .81$. An overview of the sample items for each aspect can be found in Table 4.

To allow for more robust findings, gender, general teaching experience, online teaching experience, and the potential negative impact of the COVID-19 pandemic on well-being were also assessed as control variables in the main analyses.

Analyses

To investigate the associations between faculty members' achievement goals and subjective well-being, as well as their temporal ordering, latent change score modeling was conducted in Mplus 8.1 (Muthén & Muthén, 2017). Latent change score models are a type of structural equation model used to analyze longitudinal data and understand how latent variables influence each other over time (McArdle & Grimm, 2010). In this approach, latent change variables represent the change between measurement points in a latent variable, as well as the effect of the latent variable at the initial timepoint on changes between subsequent timepoints. The latent slope and latent intercept can be used to test relationships with growth parameters of other constructs (Daumiller & Dresel, 2021).

Applying this approach to Study III, latent change score modeling allowed for the examination of achievement goals as predictors of subsequent changes in aspects of subjective well-being, as well as the reverse—where aspects of subjective well-being were predictors of changes in achievement goals. In total, four latent change score models were estimated using maximum likelihood estimation: one for each aspect of subjective well-being, while controlling for gender, general teaching experience, online teaching experience, and the perceived negative impact of the COVID-19 pandemic on well-being. All constructs were modeled at a latent level using item parcels as indicators (see Little et al., 2013). Missing data ($\leq 2\%$ per variable) was handled using full-information maximum likelihood estimation (FIML).

Before conducting the latent change score modelling, measurement invariance was confirmed (scalar invariance) to ensure that the achievement goals and aspects of subjective

well-being held the same meaning for faculty at the start and end of the semester (i.e., across time).

4.3.3. Findings

The four latent change score models had a good fit to the data ($\chi^2 \leq 11022.663$, $p < .001$, CFI $\geq .954$, TLI $\geq .937$, SRMR $\leq .049$, RMSEA $\leq .051$). The findings indicated that aspects of subjective well-being primarily predicted subsequent changes in achievement goal development (see Table 6 for standardized coefficients and standard errors, and Figure 8 for a visual overview of the findings). Specifically, faculty members with higher positive affect at the start of the semester experienced subsequent increases in mastery (task and learning) approach goals and decreases in performance (appearance) avoidance and work avoidance goals. Additionally, faculty members with higher levels of negative affect at the semester start showed decreases in mastery (task) approach goals and increases in performance (appearance) avoidance and work avoidance goals. Faculty members with higher job satisfaction at the semester start experienced increases in mastery (task and learning) approach goals and performance (appearance) approach goals, along with decreases in work avoidance goals. Finally, faculty members with higher life satisfaction at the start of the semester experienced increases in mastery (task) approach goals.

In addition to these findings, there were indications that achievement goals also predicted changes in certain aspects of subjective well-being: faculty members with higher mastery (learning) approach goals at the semester start experienced increases in positive affect, while those with higher performance (appearance) approach goals experienced increases in job satisfaction.

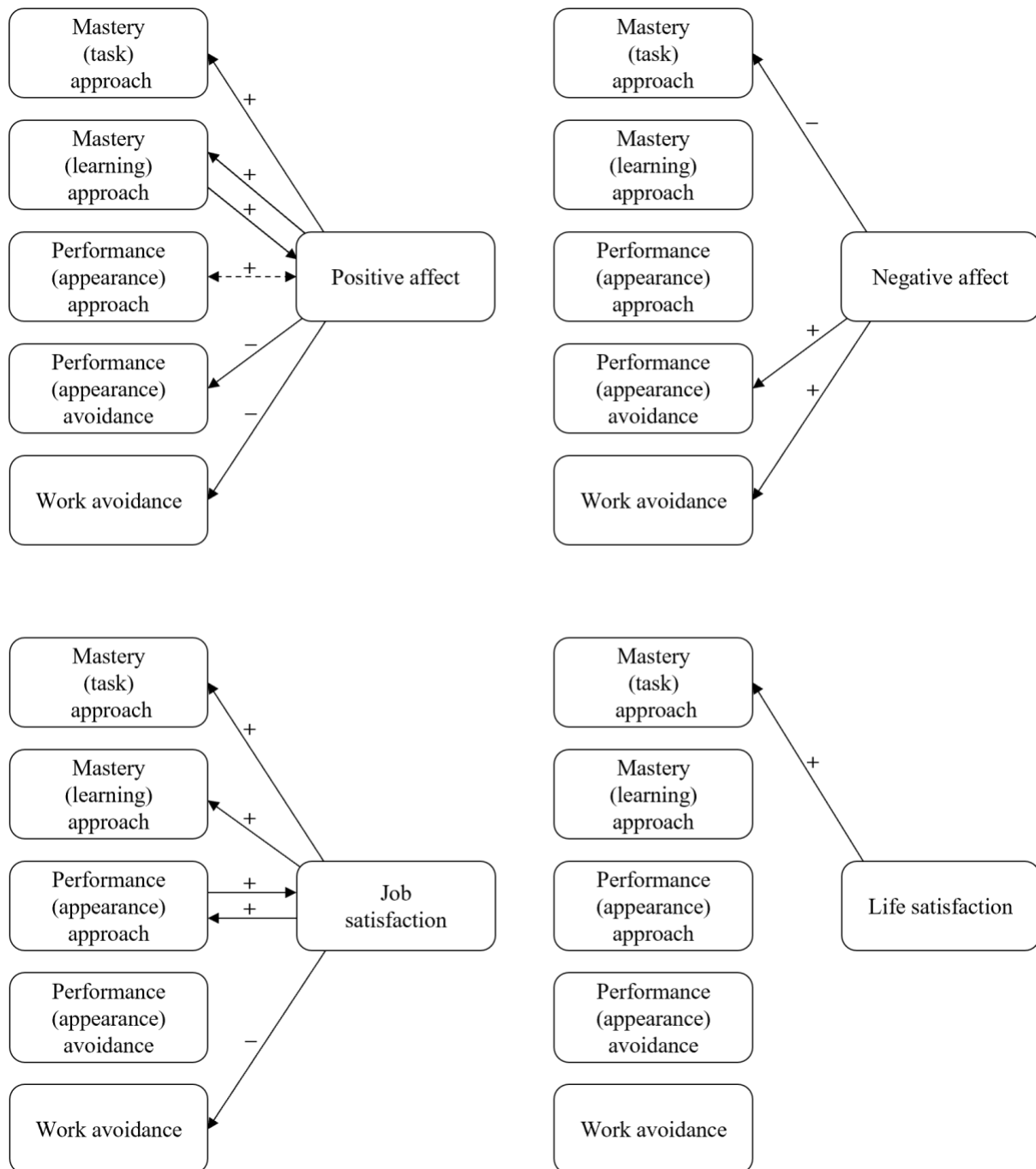
Overall, the associations between faculty members' achievement goals and subjective well-being followed the expected patterns, with most relationships emerging as hypothesized. These findings are largely consistent with prior research and the results from Studies I and II. Notably, the findings regarding the predictive direction of effects suggest the necessity of considering faculty members' achievement goals not only as causes, but also as consequences of their subjective well-being.

Table 6*Latent Change Score Modelling Results: Goals and Subjective Well-being*

	Model 1: Positive affect	Model 2: Negative affect	Model 3: Job satisfaction	Model 4: Life satisfaction
Effect of goals on subsequent change in subjective well-being				
Mastery (task) approach	-.02 (.09)	.03 (.08)	-.16 (.12)	.02 (.09)
Mastery (learning) approach	.13 (.08)	-.03 (.07)	-.08 (.11)	.02 (.06)
Performance (appearance) approach	.02 (.07)	.03 (.08)	.23 (.10)	.01 (.07)
Performance (appearance) avoidance	.06 (.07)	-.03 (.08)	-.08 (.10)	-.01 (.07)
Relational	-.07 (.06)	.05 (.06)	.01 (.08)	-.09 (.06)
Work avoidance	.03 (.07)	.01 (.07)	-.02 (.09)	.04 (.06)
Effect of subjective well-being on subsequent change in goals				
Mastery (task) approach	.19 (.05)	-.11 (.05)	.20 (.08)	.10 (.05)
Mastery (learning) approach	.21 (.06)	-.04 (.06)	.12 (.07)	.09 (.05)
Performance (appearance) approach	.07 (.06)	.04 (.06)	.14 (.06)	.03 (.05)
Performance (appearance) avoidance	-.10 (.05)	.16 (.06)	.01 (.05)	-.03 (.05)
Relational	.05 (.07)	-.07 (.06)	.07 (.10)	.10 (.06)
Work avoidance	-.16 (.06)	.11 (.05)	-.17 (.06)	-.07 (.05)
Correlation between goals and subjective well-being				
Mastery (task) approach	.30 (.05)	-.14 (.05)	.26 (.08)	.18 (.05)
Mastery (learning) approach	.38 (.05)	-.09 (.06)	.18 (.07)	.18 (.05)
Performance (appearance) approach	.17 (.06)	.02 (.05)	.05 (.06)	.13 (.06)
Performance (appearance) avoidance	.04 (.05)	.13 (.05)	-.03 (.06)	.03 (.07)
Relational	.26 (.06)	.05 (.06)	.16 (.06)	.04 (.05)
Work avoidance	-.27 (.05)	.08 (.05)	-.23 (.07)	.01 (.05)
Correlation between goal change and subjective well-being change				
Mastery (task) approach	.40 (.07)	-.11 (.06)	.18 (.11)	.06 (.07)
Mastery (learning) approach	.42 (.06)	-.09 (.06)	.18 (.08)	.02 (.06)
Performance (appearance) approach	.26 (.07)	.04 (.07)	.04 (.09)	.04 (.07)
Performance (appearance) avoidance	.07 (.06)	.03 (.06)	.07 (.08)	.08 (.05)
Relational	.12 (.08)	.05 (.08)	.11 (.10)	.04 (.07)
Work avoidance	-.21 (.07)	.15 (.06)	-.01 (.09)	-.01 (.06)

Note: $N = 493$. Presented are standardized coefficients and standard errors in brackets.

Bolded values are significant at the $p < .05$ level.

Figure 8*Overview of Predictive Effects of Changes in Goals and Subjective Well-being*

Note. Visualized is an overview of the statistically significant findings of the latent change score modelling regarding (a) goals as predictors of changes in aspects of subjective well-being, (b) aspects of subjective well-being as predictors of changes in goals, and (c) correlations between changes in goals with changes in aspects of subjective well-being (only presented when the respective predictors were not statistically significant; depicted with dotted lines). Arrows with “+” denote positive effects, while arrows with “-” denote negative effects.

5. General Discussion

Research highlights the need to better understand faculty members' subjective well-being, both to improve their happiness and productivity and to find ways to support those who are struggling. Focusing on the role of psychological factors, this dissertation examined the relationships between faculty members' achievement goals and their multifaceted subjective well-being in the teaching context. Achievement goals were selected due to their strong theoretical relevance for subjective well-being and their integral connection to faculty members' occupational experiences (e.g., Daumiller et al., 2019; Hein et al., 2019; Janke, Bardach et al., 2019). However, prior research on achievement goals and subjective well-being has largely been conducted independently of one another, particularly in the context of faculty development research.

Addressing this gap, the series of studies in this dissertation sought to examine how faculty members' achievement goals are associated with their subjective well-being (Research Question I), whether these associations hold across different contexts (Research Question II), and the temporal ordering of these constructs from a longitudinal perspective (Research Question III). The findings provide an evidence-based overview of the connections between faculty achievement goals and subjective well-being, addressing key gaps in the literature. The following discussion begins with reviewing the core findings from the three studies in relation to the research questions and prior findings, highlighting their individual contributions. Following this, strengths and limitations of the studies will also be discussed, along with directions for future research and practical implications.

5.1. Synthesis and Contributions of Findings

5.1.1. Research Question I

By addressing how faculty members' achievement goals are associated with different facets of their subjective well-being (Research Question I), this dissertation provides insights into a largely unexplored yet important area of research. The findings indicate that faculty members' achievement goals for teaching are strongly linked to their subjective well-being, over and above personal and demographic factors. A summary of the statistically significant associations identified across the three studies is presented in Table 7.

The studies conducted in this dissertation collectively provide a more nuanced understanding of the associations between achievement goals and subjective well-being, cross-validate prior findings, and offer insights into whether previous theorizing and findings on school teachers apply to faculty members. Additionally, unique findings emerged regarding the more differentiated components of goals (i.e., task and learning components of mastery goals, as well as appearance and normative components of performance goals), highlighting the importance of examining these goals on an individual basis when investigating faculty samples.

Table 7*Overview of Associations between Goals and Aspects of Subjective Well-being from Study I, II, and III*

Achievement goals	Aspects of Subjective Well-being														
	Positive affect				Negative affect						Domain satisfaction		Global life satisfaction		
	Joy		Pride	Positive affect	Anger		Anxiety		Shame	Boredom	Negative affect	Job satisfaction		Life satisfaction	
	I	II	I	III	I	II	I	II	I	I	III	II	III	II	III
Task approach		+		+		−		−			−	+	+	+	+
Task avoidance		−													
Learning approach	+			+*	−					−			+	−	
Learning avoidance		+			+			−							
Appearance approach			+			+							+	*	
Appearance avoidance				−			+	+	+		+				
Relational								+	+	+		+		−	
Work avoidance	−	−		−		+		+	+	+	+	−	−		

Note. Columns labelled I, II, and III refer to the findings documented within the three studies conducted within this dissertation, respectively.

“+” and “–” symbols indicate whether a positive or negative association emerged. For Study III, all associations refer to aspects of subjective well-being predicting changes in achievement goals, unless marked with an asterisk “*”, which symbolizes a reciprocal association.

Notably, some goals were only associated with the affective aspects of subjective well-being, while others were also linked to cognitive aspects. Moreover, it was not always the case that a given goal functioned similarly across different aspects of subjective well-being, emphasizing the value of taking a multifaceted approach.

Overall, many associations between faculty members' goals and subjective well-being emerged as hypothesized and aligned with prior theoretical and empirical evidence. However, some associations were less consistent or unexpected. These findings are summarized and discussed in the following sections.

Mastery Approach Goals

Mastery approach goals consistently showed positive links with facets of subjective well-being across the three studies. Specifically, they were found to be positively related to joy, positive affect, job satisfaction, and life satisfaction, and negatively related to negative affect, anger, anxiety, and boredom. This aligns with the adaptive nature of these goals and supports prior research on school teachers (as well as initial studies on faculty), which has documented positive associations between mastery approach goals and positive emotional experiences and satisfaction, along with negative associations with negative emotions (Daumiller et al., 2019; Janke, Bardach et al., 2019; Wang et al., 2017; Wang et al., 2018; Papaioannou & Christodoulidis, 2007).

When examining the further differentiated components of mastery approach goals, more statistically significant associations emerged for task approach goals than for learning approach goals, though both goals showed overlap in their associations with aspects of subjective well-being. This suggests that, in the teaching domain, conducting teaching tasks thoroughly and diligently may be more relevant to subjective well-being than striving to learn and develop competencies. This may reflect the practical demands of faculty work, where successfully managing teaching tasks provides immediate, tangible outcomes that positively influence emotional and cognitive well-being.

Notably, in Studies I and II, significant associations were found for either learning approach or task approach goals, but not both. However, correlations between task and learning approach goals across the three studies ($r = .55, .51$, and $.45$), along with tests for multicollinearity, did not indicate concerns regarding their separability. Daumiller et al. (2019) also found that task approach goals were significantly associated with positive affect, whereas learning approach goals were not. This suggests that examining both goals simultaneously may suppress individual effects.

Overall, these findings highlight the importance of promoting task approach goals in faculty development. When faculty members strive to teach effectively and invest effort in successfully completing tasks, it may be associated with enhanced teaching experiences, greater satisfaction, and ultimately a more positive and fulfilling professional role.

Mastery Avoidance Goals

For mastery avoidance goals, statistically significant associations were found only for the affective aspects of subjective well-being, with mixed results. As hypothesized, some maladaptive associations emerged, such as positive associations with anger and negative associations with joy. However, contrary to expectations, positive associations with joy and negative associations with anxiety were also observed. These mixed findings are not entirely surprising, as mastery avoidance goals are often debated in the literature, representing a hybrid of positive (mastery) and negative (avoidance) motivational forces (see section 2.3.1). When looking at the differentiated task and learning components of mastery avoidance goals, most effects emerged for learning avoidance goals rather than task avoidance goals.

Drawing on Elliot's (1999) theorizing, the outcomes of mastery avoidance goals may depend on which motivational force—mastery or avoidance—is more dominant in a given context. For example, if faculty members have the time and opportunity to engage meaningfully in maintaining their knowledge and skills, this could be a positive, competence-building experience where the mastery component is more salient (Senko & Freund, 2015). In contrast, when faculty members feel pressured or stressed in a competitive environment, the avoidance component may become more prominent, leading to negative emotions such as anxiety or anger.

Related to this theoretical notion, research by Senko and Freund (2015) suggests that age and experience may play a role in the (mal)adaptivity of mastery avoidance goals. Younger, less experienced faculty members may find mastery avoidance goals more challenging, leading to greater stress, pressure, and cognitive resource depletion. On the other hand, older and more experienced faculty members may cope with the demands of maintaining their skills more effectively. Although the studies in this dissertation controlled for position type, future research should explore in more depth how factors like age and experience moderate the effects of mastery avoidance goals in faculty members.

Performance Approach Goals

Performance approach goals showed mixed associations with aspects of subjective well-being. As expected, faculty members' performance approach goals were positively linked to pride and job satisfaction, but were also associated with increased anger. Interestingly, only the appearance component, rather than the normative component, yielded statistically significant effects.

On one hand, these findings align with the broader literature on performance approach goals, which often reports both positive and negative associations with various outcomes. On the other hand, research on school teachers has generally found more favourable results regarding aspects of subjective well-being. In particular, performance approach goals have been positively associated with outcomes such as personal

accomplishment and job satisfaction (Tönjes & Dickhäuser, 2009; Tönjes et al., 2008; Wang et al., 2018), while showing negative links to anxiety (Janke, Bardach et al., 2019).

One possible explanation for these findings may be related to faculty members' uncertainty about how their efforts and competence are perceived due to a lack of feedback. Faculty striving to demonstrate competence may feel pride when they receive acknowledgment, but frustration or anger can arise when there is little feedback to confirm their success in this pursuit. In higher education, aside from formal evaluations, opportunities for receiving feedback on competence are limited. This lack of information may create uncertainty, contributing to negative emotional experiences. Examining the role of factors such as external validation and feedback in moderating the links between performance (appearance) approach goals and subjective well-being would therefore be an interesting future research opportunity.

Performance Avoidance Goals

In line with expectations, performance avoidance goals were found to have maladaptive links with faculty members' subjective well-being, including positive associations with anxiety, shame, and negative affect, and negative associations with positive affect. These findings suggest that performance avoidance goals are particularly relevant to the affective components of subjective well-being. This is consistent with previous research on school teachers, where performance avoidance goals were negatively linked to joy (Janke, Bardach et al., 2019) and positively linked to anxiety, emotional exhaustion, and burnout (Janke, Bardach et al., 2019; Retelsdorf et al., 2010; Tönjes & Dickhäuser, 2009; Tönjes et al., 2008).

Notably, only appearance avoidance goals, but not normative avoidance goals, were significantly associated with aspects of subjective well-being. Thus, faculty members who were focused on avoiding appearing incompetent in their teaching experienced more negative impacts on their well-being, while avoiding performing worse than others appeared less relevant in this context. This distinction stands in line with the nature of higher education, where teaching often involves a strong appearance component. Faculty are constantly observed by students, while opportunities for normative comparisons with other faculty regarding teaching are limited. In contrast, normative comparisons may be more frequent in the research domain, where faculty compare publications, funding, and scholarly achievements (Daumiller & Dresel, 2020b).

These findings highlight the importance of distinguishing between appearance and normative components of performance avoidance goals rather than treating them as a single construct. Moreover, the strong link between appearance avoidance goals and negative well-being outcome may also emphasize the need for a less comparative and more supportive teaching culture.

Relational Goals

The findings for relational goals were less clear and did not align with initial hypotheses. It was expected that relational goals—focused on building close and supportive relationships with students—would positively contribute to faculty members' subjective well-being. However, this was generally not the case. Instead, relational goals were positively associated with shame, boredom, and anxiety, and negatively associated with life satisfaction across Study I and Study II, with no statistically significant associations observed in Study III. Only one association with personal accomplishment emerged as the sole positive link between this goal type and subjective well-being.

Although research on relational goals in higher education is limited, these results contrast available studies on teaching samples, where relational goals have been linked to positive affect and joy (Daumiller et al., 2019; Wang et al., 2017). One possible explanation for the negative associations found in this dissertation is that relational goals may be harder to achieve in higher education settings. Faculty members often face large and varying class sizes, limited contact hours, and more structured, teacher-centered instruction, which may hinder the development of close-knit relationships with students. Consequently, faculty members who prioritize building strong relationships with students may experience frustration, dissatisfaction, and negative emotions, as these goals become difficult to fulfill in practice.

Another factor to consider is that relational goals may encompass different dimensions that contribute to the mixed findings. Based on Chang and Hall's (2022) work, relational goals may not only focus on improving connections with students but also include elements aimed at avoiding the loss of relationships or negative student perceptions. These latter dimensions—focused on preventing negative outcomes—could contribute to the observed negative associations with well-being. However, as these differentiated forms of relational goals have only been studied in school teachers, further research is needed to determine their relevance for faculty members in higher education.

Work Avoidance Goals

In line with predictions, work avoidance goals were found to have maladaptive links with faculty members' subjective well-being. These goals were positively associated with shame, boredom, anger, anxiety, and negative affect, and negatively associated with enjoyment, positive affect, job satisfaction, and personal accomplishment. These results are consistent with findings from school teacher samples, where work avoidance goals have been positively linked to anxiety, anger, occupational strain, and burnout (Janke, Bardach et al., 2019; Nitsche et al., 2013; Retelsdorf et al., 2010; Wang et al., 2017) and negatively associated with enjoyment (Janke, Bardach et al., 2019; Wang et al., 2017).

Theoretically, this aligns with the notion that putting forth little effort and avoiding challenging tasks is associated with feelings of reduced competence and integrity, which negatively impacts well-being. Some researchers have suggested that work avoidance goals may serve as a maladaptive coping strategy for managing the high demands of teaching. For instance, Butler (2007) noted that teaching is “so demanding that even committed teachers might welcome an unexpected free period or a day when they do not have to prepare for all of their classes” (p. 249). Similarly, Daumiller and Dresel (2020) described work avoidance goals as a potential short-term coping mechanism for dealing with work-related stress.

In line with this, Study III revealed that faculty members’ work avoidance goals increased over the course of the semester, suggesting a growing reliance on these goals as the semester progressed. This highlights the importance of addressing work avoidance tendencies in faculty to mitigate their detrimental linkages. Developing strategies to reduce work avoidance, such as time management training or stress reduction techniques, may help faculty cope more effectively with the demands of their roles.

5.1.2. Research Question II

By examining whether the associations between faculty members’ achievement goals and subjective well-being are consistent across different contexts—namely countries and higher education institution types—this dissertation contributes to a more international and multi-institutional narrative on faculty motivation and well-being. Understanding these patterns can help institutions develop more effective global strategies for supporting faculty well-being, which is increasingly important in the current academic landscape. Given the global nature of higher education, it is crucial to understand if findings from one country or type of institution are applicable elsewhere, especially as faculty members face distinct challenges depending on local academic cultures, institutional priorities, and teaching practices. Failure to account for these differences may result in interventions that are less effective in certain cultural or institutional contexts.

In Study II, the lack of significant differences in associations between achievement goals and subjective well-being across countries (Germany, the USA, and India) and institution types (teaching- and research-oriented institutions) suggest that these psychological processes may be universal. This is significant because faculty members in different educational systems and institutions may experience varying levels of autonomy, workload, and pressure, yet their achievement goals and well-being are similarly linked. This reinforces the idea that, regardless of external pressures, intrinsic psychological variables like achievement goals can hold strong links with faculty members’ satisfaction and emotional experiences. These results align with prior studies that suggest that the psychological processes linked to individual motivations can transcend cultural boundaries (Chen et al., 2014; Sheldon et al., 2004).

5.1.3. Research Question III

By examining how faculty members' achievement goals and subjective well-being are associated over time, this dissertation contributes insights to a research area that has received little attention. Previous achievement goal research has primarily focused on how goals predict outcomes, overlooking other plausible dynamics, such as how well-being might influence goal striving or the possibility of reciprocal relationships between constructs. The findings from this dissertation showed that faculty members' subjective well-being predicted changes in their achievement goals over time, which challenges prior assumptions and opens up new theoretical and practical conversations regarding how best to support teaching populations.

Notably, the finding that subjective well-being more consistently predicted goal change underscores the potential impact of focusing on emotional and cognitive well-being as a key to enhancing professional motivation. By improving faculty well-being, institutions could not only increase job satisfaction and positive emotions but also foster more adaptive, mastery-based achievement goals, possibly leading to greater engagement and motivation in teaching. This aligns with prior research by Daumiller and Dresel (2021), which demonstrated that burnout predicted a decrease in task approach goals and an increase in work avoidance goals over time, but not the reverse. Furthermore, the finding of positive reciprocal loops—between learning approach goals and positive affect, as well as between appearance approach goals and job satisfaction—suggests that, in certain cases, well-being and achievement goals reinforce one another in a mutually beneficial cycle.

However, it is important to acknowledge that while temporal effects were detected over the three-month study period, some of these relationships may require a longer time frame to fully manifest. For example, the influence of certain achievement goals on well-being might take more time to emerge, and short-term studies may not capture the gradual developments in these processes. Additionally, subjective well-being displayed greater stability over the study period compared to achievement goals, which may have limited the detection of stronger causal effects from goals to well-being. This suggests that well-being may be more resistant to short-term fluctuations, whereas achievement goals may shift more dynamically in response to changing circumstances.

This may also explain why achievement goals did not emerge more strongly as predictors of well-being, and why more reciprocal effects were not detected, as reported in prior studies (e.g., Daumiller & Dresel, 2021; King, 2014). Furthermore, the potential influence of unobserved third variables on these relationships cannot be excluded, underscoring the need for future research to explore this possibility when investigating temporal dynamics. Nevertheless, the findings provide initial longitudinal evidence in faculty and highlight the importance of considering alternative links between achievement goals and subjective well-being beyond unidirectional models.

5.2. Strengths and Limitations

The studies conducted within this dissertation offer several strengths that significantly contribute to the research literature. One of the key strengths is the detailed exploration of the relationships between achievement goals and subjective well-being in higher education faculty. Within this, achievement goals and subjective well-being were assessed in a differentiated manner—allowing for more nuanced insights into their relations that may have otherwise remained undetected (e.g., if researchers were to look at superordinate goal types or only one indicator of subjective well-being). Regarding subjective well-being in particular, instead of examining solely negative indicators as is typically the case in faculty research, positive psychology and multifaceted approaches were applied in the present dissertation to offer broad insights into faculty members' functioning.

From a methodological perspective, different study designs as well as relatively large and varied samples of faculty members from different subject areas (e.g., natural sciences, social sciences, business, humanities), institution types (teaching- and research-focused institutions), and countries (Germany, Austria, the USA, India) were incorporated. Different analysis techniques were applied to increase confidence in the results, such as measurement invariance testing, structural equation modeling, and latent change score modeling. Within these analyses, the influence of relevant personal and demographic factors was always controlled for. Prior to these studies, little was known about this topic, making the findings an essential foundation for future research to build upon. Together, these strengths make this dissertation a valuable contribution to the understanding of faculty motivation and well-being.

Despite these strengths, there are also several limitations that should be considered when interpreting the findings. First, the cross-sectional designs employed in Study I and Study II do not allow for causal insights into the effects of faculty members' achievement goals and subjective well-being. Thus, it cannot be asserted that achievement goals led to changes in subjective well-being, or vice-versa. While much of the literature has theorized achievement goals to be predictors of cognitive and affective outcomes, it is also theoretically reasonable to assume reverse or reciprocal effects. Study III focused on addressing this issue by including two assessments of faculty members' achievement goals and subjective well-being across a semester, which provided insights into temporal ordering of the respective constructs. However, a more comprehensive understanding of the causal mechanisms at work is needed to guide future theoretical developments and intervention-based research. As a starting point, longitudinal studies with larger sample sizes should be conducted to examine the interplay between achievement goals and subjective well-being over a longer time period.

A key limitation in Study I was the modeling of achievement goals and discrete emotions at the manifest rather than latent level. As discussed in section 4.4.2, latent-level

analyses account for random measurement error in observed variables, leading to more accurate estimates of the relationships between constructs (Geiser, 2013). Studies II and III addressed this by incorporating structural equation modeling and latent change score modeling. Future research should continue to employ latent modeling techniques where possible, as they offer more precise insights into the relationships between faculty members' achievement goals and subjective well-being.

Another limitation of the studies is the exclusive reliance on self-report data. While self-report measures are well-suited for assessing subjective constructs like faculty members' motivations and well-being (see Pekrun, 2019), they are also prone to response biases and common method variance (Donaldson & Grant-Vallone, 2002). Efforts were made to mitigate these issues: An online survey format allowed for participants to answer in private settings which may reduce social desirability, and they were assured of anonymity to encourage honest responses. Additionally, systematic dropout was tested for in Study III, given the study's two measurement points. Future research could consider supplementing self-report data on achievement goals and subjective well-being with informant reports (e.g., from students, colleagues, or family), experience sampling techniques, the addition of interview or qualitative measures, as well as objective measures of stress and strain (e.g., cortisol levels, heart rate). Moreover, in Study I in particular, single item self-report measures were used to assess emotions, which should be followed up on with more extensive, multi-item measures (as addressed in Study II and III).

Finally, a further limitation lies in the lack of consistency in how subjective well-being was measured across the three studies. Although each study focused on core facets of subjective well-being as defined by Diener et al. (2009), different measures were used (see Table 4 for comparison). For example, Studies I and II provided more specific information on faculty members' discrete emotions, while Study III focused on general affective states. Nevertheless, this lack of consistency limits direct comparability across studies. Future research should aim to adopt a more uniform approach to assessing subjective well-being in faculty samples, which would also benefit the broader faculty well-being literature where well-being is not uniformly defined or understood across studies. A multifaceted approach that includes both positive and negative discrete emotions, along with job satisfaction and life satisfaction, is likely to provide the most comprehensive overview, particularly given the variation in emotional outcomes observed in this research.

5.3. Implications for Research and Practice

5.3.1. Research Implications

In addition to the steps for overcoming limitations mentioned above, several further research directions can be derived from the studies within this dissertation. First, the findings revealed that faculty members' achievement goals and aspects of their subjective

well-being were strongly associated in the teaching domain. However, as discussed in the introduction, teaching is only one of the many prominent tasks faculty members undertake. Achievement goals in other key domains, such as research, may also play a significant role in faculty well-being. Exploring these areas could provide a better understanding of how competing demands in teaching and research contribute to motivations and subjective well-being, helping to develop more tailored interventions. Initial research by Daumiller and Dresel (2020a, 2021) has already demonstrated associations between achievement goals for research and burnout and engagement. Future studies could further investigate how goals across domains—such as research and teaching—are linked to subjective well-being, allowing for cross-domain comparisons and more targeted strategies to support faculty.

Moreover, while the importance of examining causal mechanisms has already been discussed, future research should also explore other factors that might shape the relationships between achievement goals and subjective well-being. In addition to internal factors such as external validation and feedback (see section 5.1.1), it is equally important to consider environmental aspects of the work setting. Lackritz et al. (2017) highlight the role of external factors such as institutional support, research support, and tenure processes in influencing faculty well-being through psychological needs such as autonomy and competence. These findings underscore the value of examining how both internal and external factors shape motivations and well-being, as institutional environments can either buffer or amplify stressors. For instance, factors like workload, faculty autonomy, and institutional support may influence how achievement goals are pursued and how faculty feel in terms of their well-being. Investigating these variables in future research would help provide a more comprehensive understanding of the dynamics between achievement goals and subjective well-being in academia.

Lastly, researchers have advocated for a multiple-goals perspective, which recognizes that individuals often pursue several goals simultaneously. This perspective suggests that combinations of goal strivings may have significant implications for various outcomes (Pintrich, 2000). For example, students have been found to endorse multiple achievement goals at once, with these patterns being linked to subjective well-being and remaining stable over time (Tuominen-Soini et al., 2008; Tuominen-Soini et al., 2012). Although the multiple-goals perspective was not examined in this dissertation, it represents an interesting future research direction, especially given the moderate to high correlations found between different achievement goals in each study. Adopting this approach for faculty members would offer a more nuanced view of how multiple goals interact in relation to subjective well-being and could reveal whether certain combinations of goals are linked to more adaptive or maladaptive outcomes. Covington (2002) proposed that multiple-goal patterns can be additive, uplifting, compatible, or conflicting. Taking a person-centered approach to

exploring faculty members' goal profiles and subjective well-being could thereby offer a promising avenue for future research.

5.3.2. Practical Implications

The findings of this dissertation point to several ways in which faculty members' achievement goal strivings and subjective well-being can be supported from a practical perspective. To this end, two central questions emerge: (1) *what processes should be considered to facilitate adaptive goal strivings and improved subjective well-being in faculty?* and (2) *what methods of support can be used to achieve this?* Regarding the first question, the findings in this dissertation emphasize that task and learning approach goals are positively associated with well-being, while appearance and work avoidance goals have negative associations. Moreover, promoting positive affect and satisfaction in faculty members appears to foster approach and reduce avoidance goal strivings. This indicates that efforts should focus on creating conditions to strengthen these links. To address this, methods of support can be organized into individual and environmental changes.

Individual Approaches

Individual approaches to fostering adaptive goal striving and subjective well-being focus on equipping faculty members with the knowledge and strategies to monitor and improve their well-being and professional functioning. Professional development programs, courses, and workshops provide crucial opportunities to educate faculty about the benefits of improving their subjective well-being and adopting mastery approach goals—not only for their personal health and happiness but also for their productivity and career success.

Within this, providing faculty with theoretically and empirically grounded insights into the importance of subjective well-being and motivation, framed within personally meaningful contexts, may help them to prioritize these areas. This is particularly relevant in the often demanding environments of academia, where workload and stressors can hinder an individual focus on well-being. Given the findings related to temporal ordering, professional development initiatives should emphasize improving subjective well-being as a foundation for cultivating adaptive achievement goals. Within this, a focus should be placed on the positive links between well-being and learning/task approach goals, as well as how compromised well-being fosters maladaptive goals, such as work and appearance avoidance goals. Moreover, as research indicates that mindfulness, self-compassion, and autonomy may be particularly effective in enhancing well-being among educators, these concepts could also be integrated into professional development opportunities (Dreer, 2022).

Additionally, faculty members could benefit from self-assessment and journaling tools designed to track well-being and goal strivings over time. These tools would enable faculty to observe patterns, such as a decline in well-being and an increase in avoidance goals during stressful times (e.g., early semester). Recognizing these patterns would allow them to

take individualized, proactive steps to manage their well-being, fostering greater self-awareness and promoting long-term personal and professional improvements.

Environmental Approaches

Beyond individual strategies, environmental approaches that focus on modifying the work climate to support well-being and adaptive goal strivings are also highly relevant for intervention-based research and practical support. Studies, including those by Dickhäuser et al. (2020) and Lackritz et al. (2017), highlight how institutional support, leadership styles, and feedback culture are critical in shaping motivation and well-being. For example, fostering a feedback culture that emphasizes continuous improvement, learning, and completing tasks well, rather than comparison or fear of failure would be beneficial. Moreover, promoting a competence-supportive feedback culture and creating spaces for open discussions about well-being can foster environments where faculty feel valued and supported.

Department leaders can also prioritize policies that foster a work-life balance, ensure clarity of expectations, and provide opportunities for open sharing and collaboration. These efforts are crucial in facilitating well-being, as a supportive environment may help buffer against negative stressors and promote more adaptive goal pursuits. Related to this, strategies such as implementing mentorship programs to provide guidance and support for new faculty members (see Stuckey et al., 2019), and regular assessments of faculty needs through surveys or feedback sessions, could help with this pursuit.

5.4. Conclusion

Overall, the three studies conducted within this dissertation provide empirical evidence for previously unexamined relationships between faculty members' achievement goals and subjective well-being, both across contexts and over time. Notably, the findings consistently highlighted positive links between mastery approach goals and subjective well-being, as well as maladaptive associations of performance avoidance and work avoidance goals. By taking a differentiated approach to studying these constructs, this research uncovered nuanced associations that might otherwise have been overlooked.

In terms of the directional effects over time, the discovery that aspects of subjective well-being served as stronger predictors of achievement goals than the reverse, along with hints of reciprocal relationships, offers important insights. These findings provide a foundation for further research in faculty development, particularly in the context of longitudinal and intervention studies. Supporting faculty members' well-being and motivation through such research holds great potential, not only for enhancing their individual experiences, but also for positively impacting broader educational, institutional, and societal outcomes that rely on their ability to thrive in complex, demanding roles.

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